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THESIS

ACHIEVING QUALITY IN THE NAVY FIELD CONTRACTING SYSTEM

by

Richard D. Dowling

December 1986

Thesis Advisor: John F. McClain

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Achieving Quality in the Navy Field Contracting System

by

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Lieutenant Commander, Supply Corps, United States Navy
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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

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December 1986

ABSTRACT

The Navy Field Contracting System (NFCS) recently began a program of funding its activities based upon the productive units completed. Due to this emphasis on quantity of output, there was concern that the quality of the product would suffer. This research studies the effect of Productive Unit Resourcing (PUR) on the quality of contracts produced by the Navy Field Contracting System. In doing so it examines the current quality practices in the NFCS, as well as some past and present practices within the Air Force. These findings are presented along with some of the current ideas found in the commercial sector concerning achieving quality. A program for achieving quality in the NFCS is also proposed.

TABLE OF CONTENTS

I. INTRODUCTION -- 7

A. BACKGROUND ---------------------------------- 7

B. OBJECTIVES ----------------------------------- 7

C. RESEARCH QUESTIONS ----------------------- 8

D. SCOPE, LIMITATIONS, AND ASSUMPTIONS ---------- 8

E. METHODOLOGY --------------------------------- 9

F. ORGANIZATION OF THE THESIS ------------------ 10

II. FRAMEWORK --------------------------------------- 11

A. PRODUCTIVE UNIT RESOURCING ----------------- 11

B. QUALITY -- 15

1. Defining Quality ---------------------------- 15

2. The Need for Quality ---------------------- 16

3. Achieving Quality -------------------------- 18

4. Deming's Fourteen Points ------------------ 19

5. Statistical Methods ----------------------- 25

6. Synopsis of Findings ---------------------- 26

C. SUMMARY --------------------------------------- 30

III. RESEARCH FINDINGS AND ANALYSIS ------------------ 31

A. PREVIOUS STUDIES ---------------------------- 31

1. Background of the Study ------------------ 32

2. Conduct of the Study ---------------------- 33

3. Results of the Survey --------------------- 33

4. Conclusions of the Study ----------------- 39

B. CURRENT PRACTICES -------------------------- 40

1. General Findings ---------------------------- 40

2. Specific Findings --------------------------- 41

3. Current USAF Practices ---------------------- 48

C. SUMMARY -- 50

IV. PROCUREMENT QUALITY MODEL -------------------------- 52

A. INTRODUCTION ------------------------------------- 52

B. REVIEW --- 52

C. GENERAL FRAMEWORK FOR A QUALITY PROGRAM ------- 54

1. Step One - Achieving Quality ---------------- 55

2. Step Two - Measuring Quality ---------------- 58

3. Step Three - Improving Quality -------------- 62

4. Manning the Quality Model ------------------- 63

D. SUMMARY -- 64

V. CONCLUSIONS AND RECOMMENDATIONS --------------------- 70

A. INTRODUCTION ------------------------------------- 70

B. CONCLUSIONS -------------------------------------- 70

C. RECOMMENDATIONS ---------------------------------- 72

D. SUMMARY -- 74

1. Answers to Research Questions --------------- 74

2. Recommendations for Further Research -------- 76

APPENDIX A. ANALYSIS OF PROCUREMENT QUALITY QUESTIONNAIRE 1 ---------------------------- 77

APPENDIX B. ANALYSIS OF PROCUREMENT QUALITY QUESTIONNAIRE 2 ---------------------------- 79

APPENDIX C. ASO CONTRACT QUALITY REVIEW SHEETS -------- 84

APPENDIX D. ASO CONTRACT QUALITY REPORT FORMS --------- 86

APPENDIX E. NSC NORFOLK CONTRACT FILE INDEX ----------- 89
APPENDIX F. NSC NORFOLK CONTRACT FILE CHECK SHEET ----- 93
APPENDIX G. SMALL PURCHASE QUALITY REVIEW GUIDE ------- 97
APPENDIX H. LARGE CONTRACTS QUALITY REVIEW GUIDE ----- 100
APPENDIX I. CUSTOMER QUALITY QUESTIONS --------------- 104
LIST OF REFERENCES ----------------------------------- 106
BIBLIOGRAPHY --- 108
INITIAL DISTRIBUTION LIST ----------------------------110

I. INTRODUCTION

A. BACKGROUND

Much has been written on the subject of the quality of products produced for purchase under government contract and even more has been written on the general subject of quality. Surprisingly little has been written on the quality of the procurement itself. This thesis will explore the aspects of quality in procurement in an attempt to discover what makes a good purchase and how the quality in purchasing can be achieved.

B. OBJECTIVES

The Navy Field Contracting System (NFCS) has recently installed a system known as Purchase Unit Resourcing (PUR) for funding procurement activities under its cognizance. The PUR system funds activities based on the number of purchase documents completed. The overall attitude towards the system has been favorable, however, one of the major problems cited with it is its failure to recognize the importance of quality of procurement actions. As is often the case with any system based solely on quantity for performance, the PUR system is likely to cause a decrease in quality in the NFCS. Perceiving this potential problem, the managers of the NFCS have decided that a system for measuring quality is also required to insure that the proper balance is maintained between quantity and quality. The goal of this thesis is to study the Navy Field Contracting System and the subject of quality in general in order to determine how quality principles can be applied to contract actions.

C. RESEARCH QUESTIONS

Given the preceding general objectives, the following primary research question was posed: How can improved quality of contractual actions be achieved in the Navy Field Contracting System?

The following ancillary research questions are deemed pertinent in addressing the basic research question:

1. What is the definition of quality in contracting?
2. How is quality currently measured within the NFCS?
3. What measures of quality are used outside of the NFCS and can they be applied to the NFCS?
4. What specific methods should be established to improve the quality of procurement actions within the NFCS?

D. SCOPE, LIMITATIONS, AND ASSUMPTIONS

The thrust of this thesis is to provide a management guide to NFCS managers to improve the quality of their purchase actions. The thesis is limited to initial procurement rather than subsequent contractual or administrative actions. It focuses on procurements between $1,000 and $1,000,000 as those actions that are the most common in the NFCS.

The primary concern of the thesis is to determine what quality is and then to find a way to apply quality to the contracting process. There is a vast and growing amount of literature and opinion on the general subject of quality. As competition in the private sector increases, it is expected that the push for quality will also expand. Rather than try to cover all the different concepts and programs currently offered on quality, this thesis is limited to the concepts of quality proposed by two of the most distinguished authorities in the field. The work of Joseph M. Juran and, more often, W. Edwards Deming are used as the guide for much of the concepts expressed in this thesis. Interested readers may consult their works as well as others listed in the bibliography for further discussion on quality.

This thesis assumes the reader has a general knowledge of the DoD contracting language, and the Defense acquisition process. Additionally, it further assumes the reader has a general understanding of the organization of the NFCS and its role in this acquisition process.

E. METHODOLOGY

A combination of acquisition literature and telephonic and personal interviews regarding current practices within the NFCS was used to provide data for the thesis. The literature base was mainly compiled through the Defense Logistics Studies Information Exchange, the Naval Postgraduate School Library, and a review of various journals and periodicals.

F. ORGANIZATION OF THE THESIS

This thesis attempts to take the reader through the subject at hand as logically as possible. Chapter II is designed to provide the reader with a background on the PQR system as it is currently being used in the NFCS. A general discussion of quality and how to achieve it will also be included in this chapter. With this foundation upon which to build, a presentation will be made of current practices within the NFCS in Chapter III. This chapter will also include a review of a study conducted by students at the U. S. Air Force Academy concerning quality in procurement. Chapter IV will present an overall program for achieving quality in procurement. Finally, recommendations and conclusions will be presented in Chapter V.

II. FRAMEWORK

A. PRODUCTIVE UNIT RESOURCING

Productive Unit Resourcing (PUR) is a method of resourcing used within the Naval Supply Systems Command (NAVSUP) to fund its field activities by productive output [Ref 1:p. 1]. Although the PUR program applies to almost all areas under NAVSUP cognizance, this thesis will limit its scope to the use of PUR in the contracting environment.

The heart of the PUR system is in funding the activity by productive units completed. In the contract arena, the PUR program ties funding to purchase/contract actions completed. Activities are funded on a rate per contract action with different rates for both small and large purchase. This rate is obtained by dividing total costs of the contract/purchase operation by the number of actions completed. Costs that are included in the rate calculation include large or small purchase buying costs, contract or purchase administration costs and procurement overhead costs. The buying and administration costs consist mostly of salaries and the overhead costs include items such as procurement printing. These costs are added together and divided by the number of purchase actions completed. In the case of large contracts, each type of action is given a weight as noted in Table 1 [Ref 1:p. 10].

TABLE 1 - PRODUCTIVE UNIT WEIGHTS BY CONTRACT ACTION TYPE

CONTRACT TYPE	STANDARD MANHOURS	PRODUCTIVE UNIT WEIGHTS
Del order/GSA/Other Fed Agencies	13	1
Sealed Bids	39	3
Unpriced BOA Orders	13	1
Initial Placement of BOAs/ Contracts & IDTCs < $25k	26	2
Definitized BOA Orders		
25k to < 100k	39	3
100k to < 500k	143	11
500k to < 1m	143	11
1m to < 10m	182	14
10m and Greater	182	14
Negotiated Competitive Supply		
25k to < 100k	39	3
100k to < 500k	52	4
500k to < 1m	117	9
1m to < 10m	182	14
10m and Greater	182	14
Negotiated Competitive Service Contract Admin Retained		
25k to < 100k	52	4
100k to < 500k	156	12
500k to < 1m	156	12
1m to < 10m	195	15
10m and Greater	195	15
Negotiated Sole Source/8A/Nonprofit Educational/Utilities		
25k to < 100k	52	4
100k to < 500k	156	12
500k to < 1m	156	12
1m to < 10m	195	15
10m and Greater	195	15

Note: Productive units weights were calculated by dividing delivery order manhours into the manhours for each contract type.

The calculation of the small purchase rate is based simply on the number of units completed less Foreign Military Sales (FMS) actions. Also, there is a procedure for adding units based on a significant increase in workload, but since this is not pertinent here it will not be discussed further.

Using the previous guidelines, each NAVSUP activity figures a rate based on past performance. This rate is then applied to the projected workload of the activity. At the end of each fiscal quarter, the estimated and actual outputs and rates are compared. If the actual amounts significantly exceed or fall short of the estimates, funds are either paid out to the activity or paid back to NAVSUP based on Table 2 [Ref 2].

From the previous information, it is easy to see that the PUR system causes the NFCS managers to have significant interest in the number of contracts/purchases produced, while showing little to no concern over the quality of the output. In some of the other fields covered by PUR such as material accounting, fund resource accounting, and disbursing, quality standards have been placed in the system that attempt to prevent the quality of the product or service from declining as a result of this new emphasis on quantity. Currently, however, there is no system in place that does this for procurement. This thesis will attempt to address this dilemma.

In all areas covered by PUR, there is a general and administrative (G&A) pool which covers such items as training, administrative support, transportation and utilities. In the acquisition arena, it also covers

TABLE 2

PAYOUT/PAYBACK CALCULATIONS

Actual Output	Actual Rate	Payouts/Paybacks Based on Output
Greater	Greater	Planned Rate * (Actual - Planned Output)
Less	Greater	Planned Rate * (Actual - Planned Output)
Greater	Less	Actual Rate * (Actual - Planned Output)
Less	Less	Planned Rate * (Actual - Planned Output)

Actual Output	Actual Rate	Payouts/Paybacks Based on Rate
Greater	Greater	
Less	Greater	
Greater	Less	(Actual - Planned Rate) * Planned Output X 50%
Less	Less	(Actual - Planned Rate) * Actual Output X 50%

Procurement Management Review. This G&A pool is not based on a rate per productive unit, but is expected to vary in relation to the activity's workload. The resources for G&A are provided as an allocation to the activity in the financial operating plan and are divided among the G&A cost centers by the activity.

B. QUALITY

1. Defining Quality

Webster defines quality as "a degree of excellence" [Ref 3:p. 963]. The problem that exists with this definition, however, is to define excellence. Attempting to follow such a chain would not put us any nearer our goal. Probably the best definition found for quality in researching this subject was "I know it when I see it" [Ref 4]. Though this does not offer any specific guidelines for measuring quality, it does highlight one of the key aspects of quality:

There is no one measure of quality that applies to all circumstances.

This does not mean that quality is not measurable nor does it mean that quality cannot be defined for a specific product or service. It does mean however, that any measure chosen must be the correct one for achieving the desired results. Also, any definition given to quality for a particular product or service should be flexible enough to adapt to changes in the product or service as well as changes in the customers needs.

With these considerations in mind, a definition for a quality procurement can be provided that will be used as a guide for this thesis. The Armed Services Pricing Manual states that "The objective of procurement is to secure needed supplies and services from responsible sources at fair and reasonable prices calculated to result in the lowest ultimate overall cost to the Government" [Ref 5:p. 2-1]. The Federal Acquisition Regulations and supplements thereto further require that the delivery schedule be adhered to, that the specifications be met, and that the rules and regulations governing the procurement be followed in accomplishing the task. Therefore, for the purposes of this thesis the best definition of a quality procurement seems to be *one that provides to the customer, the desired item or service within the time required at a fair and reasonable price that is in the best overall interests of the Government and that is in compliance with the rules and regulations that govern such a procurement*.

2. *The Need for Quality*

As difficult as quality is to define, achieving it is even more formidable. The need for it though cannot be questioned. The number of practicing quality experts today is small compared to the demand for their services, but their numbers are growing. Modern companies have recognized that in order to be successful, quality products or services must be the company standard [Ref 6:p. 30]. The U.S. Government is also taking notice of the necessity for quality. The recently published findings of the President's Blue Ribbon Commission on Defense Management (The Packard Commission) highlighted the need for increasing quality in one of its recommendations under the area of defense procurement. Recommendation F of this report stated that "Federal law and DoD regulations should provide for substantially increased use of commercial-style competition, emphasizing quality and established performance as well as price" [Ref 7:p. 62].

Why the emphasis on quality? There are two basic reasons why quality is a good idea. First, in the commercial sector, if the quality is low the product won't sell. Every year customers get smarter and the demands for a quality product that they place on suppliers increase. Unless the supplier can satisfy the consumer, the consumer will go elsewhere for his/her needs. This reality caught American carmakers by surprise, but since they've realized it, quality has become the primary concern. The second reason for being interested in quality is that quality costs less [Ref 8:p. 6]. If a job is done correctly the first time, there is no need to bear the expense of correcting mistakes. Also, the time used to do the work the first time will not have been wasted. In many cases the cost of redoing the work can be greater than the cost of doing it correctly the first time. Modern businessmen have recognized these facts and are taking action to improve their quality.

3. Achieving Quality

There are many programs for achieving quality. W. Edwards Deming is recognized by many as the leader in the quality field and his book Quality, Productivity, and Competitive Position is the basis for much of this thesis. There are, however, many other recognized quality experts practicing today. Joseph M. Juran and P. B. "Phil" Crosby are also among the many well-known, practicing quality specialists today. Some of their work, as well as that of others, was a part of the research effort in compiling this thesis. Hopefully, by gleaning the parts of the current work in the quality field that seem to have the greatest correlation to the field of contracting, this thesis can present an overall plan for achieving quality in contracting. Interested readers should consult the bibliography section of this thesis for further reading on the subject of quality.

A key point that is noted over and over in the literature on quality and that should be emphasized from the beginning is that quality cannot be obtained instantly. Neither does the quest for improving quality ever end. Current Ford Motor Corporation commercials advertise that quality was made "job one" in 1976. Ten years later, this is still their primary concern and the dedication towards it has not lessened.

4. Deming's Fourteen Points

The following discussion will focus on the work of W. Edwards Deming and his fourteen points that are the basis for his program to achieve quality. Deming began as a statistician but expanded into the quality world. Over thirty years ago Deming went to Japan and presented his ideas on quality. The success of his program in Japan led to the current regard for him in this country. The commercial success of Japanese products in this country led to U. S. businesses' concern for quality.

The fourteen points proposed by Deming to obtain quality in a program are not a cure-all and may not even apply in every circumstance. They are however, a positive place to begin a quest for quality and are presented here in that respect. It should also be noted that Deming wrote in the context of presenting a program for commercial, production based organizations thus some of his points will need adaptation [Ref 8:pp. 17-49].

Point 1 - Create constancy of purpose for improvement of product and service.

This is one of the most important and most difficult conditions to obtain in achieving quality. Saying you want quality is not enough. Everyone involved in the process must be dedicated to the concept of quality. Slogans such as Zero Defects and "Quality is Job One" are useless unless everyone from top management down actually believes quality is of prime importance and carries out their duties in consonance with this goal. The question on everyone's mind should be, "What can be done to improve the quality of the product?" The answer may lie in more training, better equipment, labor saving procedures or any number of other ideas.

Point 2 - Adopt the new philosophy.

Put another way, this point is "don't accept mistakes". Just because something was "good enough" in the past, it isn't necessarily "good enough" now. Every mistake made costs time and money. If an organization is going to achieve quality, it must seek to eliminate all mistakes.

Point 3 - Cease dependence on mass inspection.

There are two concepts here. First, if the person first making the item (writing the contract) knows it will be reviewed, and probably changed, they are less likely to be concerned with getting it right the first time. In addition, it costs money to inspect. If every item is inspected, when a statistical sample could produce the same result, money and or manpower is being wasted.

Point 4 - End the practice of awarding business on price tag alone.

This is a key concept of Deming's and is one that is echoed to a degree in the Packard Commission recommendation noted earlier. In the context of this thesis, however, it does not apply directly. The concept of doing anything on one basis only does apply however. As long as the PUR system considers number of documents completed to be the only controlling factor, quality of contracts in the NFCS will suffer. If on the other hand, quality is included as a key (Deming would say - the key) concept, then quality contracts may be possible.

Point 5 - Constantly and forever improve the system of production and service.

This is probably Deming's key point that applies to this thesis. The secret here is to improve the system to make the job being done easier and at the same time maintain or improve the quality of the output. Many of the improvements can come from the workers, if management listens to and acts on their recommendations. But, the greatest improvements must come from management. This is true not only to show the workers that management is committed to quality, but also because management is in the best position to see the overall effect of changes on the entire operation.

Point 6 - Institute modern methods of training on the job.

This point goes hand-in-hand with the previous one. As important as training is to the proper execution of the task, it is amazing how often it is put far behind accomplishing the job. This is even more surprising when, as pointed out earlier, it costs more in time and effort to fix a poorly done job than to do the job correctly the first time.

Point 7 - Institute modern methods of supervision.

This thesis is on quality so it will not attempt to cover the area of supervision. It should be noted however, that poor supervisors or managers at any level are probably the greatest obstacles to achieving quality. (See point 10.)

Point 8 - Drive out fear.

J. M. Juran differs from Deming in that he believes that fear is good in that it can get the most out of employees. Though this may be true, another problem is created by fear. Employees that are afraid are unlikely to come forth with new ideas and in extreme cases may even withhold information that is crucial to the success of the company. If "productivity at all costs" is the message the employee hears and an environment of fear is present, no improvements are going to be forthcoming concerning quality. In addition, poorly trained personnel, rather than bringing attention to themselves by asking questions, are going to continue to produce the same poor quality goods over and over. Fear is related to the previous point in that as the quality of management improves and employee faith in management increases, the amount of fear will likely decline.

Point 9 - Break down barriers between staff areas.

One of the greatest impediments to any organization in achieving its goal, be it quality or anything else, is competition between sub-organizations. If goals are not established intelligently by management, in the interest of optimizing their own circumstances, lower level managers may take action that supports their individual area at the expense of the entire organization. For example, if the guidance given to production is to produce the maximum quantity possible, concern over quality will decline and the amount of rework and overall costs will probably increase.

Point 10 - Eliminate numerical goals, posters and slogans for the work force which ask for new levels of productivity without providing methods for achieving these new levels.

This point at first glance seems to run contrary to commonly accepted ideas for improving quality. If people know how they stand and where they need to be, then they can't help but get better, right? Wrong. Most people try to do the best job they can given the tools at hand. A chart that tells them where they are in relation to where they should be without telling them how to get there will probably result in decreased morale rather than increased output. However, a chart that gives not only the status to date, but also lists efforts being undertaken by management to improve the system can boost morale.

Point 11 - Eliminate work standards and numerical quotas.

If the amount of output is the standard by which the employee will be graded (or paid) then that will be his/her chief concern. If, on the other hand, the employee is allowed to produce at the pace that allows him/her to produce the quality of product desired then that will become the primary concern.

Point 12 - Remove barriers that hinder the hourly worker.

There are many of these barriers. According to Deming, "...they exist in almost every plant, factory, company, department store and government office, in the United States today" [Ref 8:p. 43]. Some of the barriers are: the lack of a clear definition of what is wanted, inspection standards that are interpreted differently by each inspector, poor quality or incorrect material to work with, and finally, incompetent management. Removing these barriers is no small task and it is one of the reasons that the quest for quality never ends.

Point 13 - Institute a vigorous program of education and training.

In order to obtain quality it is necessary to train people not only on how to do their job better, but also on how to produce a quality product. Inspectors must be trained on quality standards, employees must be kept up-to-date with new methods and procedures, and management must be familiar with statistical methods to see where problems are and how to best resolve them.

Point 14 - Create a structure in top management that will push every day on the above 13 points.

Though this seems to be just a reemphasis of the previous points, it is much more. The key points are that it must be top management and that it must be pushed every day. Without the total support and participation by top management any quality program is doomed to failure. Just as important is constant emphasis on quality. Everyone must be motivated at all times to produce a quality product.

5. Statistical Methods

As a statistician, Deming's entire program is based upon statistical analysis of data to identify both problems with and methods for obtaining quality. Changes intended to improve the system should not be made blindly. The basis for any decision should be based on statistical evidence. Don't make a change without having a method of measuring the effect of the change. This thesis will not attempt to provide a precise statistical model for use in measuring progress towards quality. There are many different models available [Ref 9] and more are developed every day. The key is to pick a method that measures increases or decreases in quality and use that model consistently. More will be said on this subject in the final chapter.

6. Synopsis of Findings

Deming's book and others on the subject offer well defined and step-by-step procedures for obtaining quality. None of what has been written, however, offers a program for obtaining quality in the procurement arena. One study was discovered that investigated this field and it will be reviewed in the following chapter. It is important to note here though that some aspects of quality seem to be predominant in almost all writings on the subject. They will be restated here for the manager interested in tackling the quality program that might not have the time or the inclination for further research in the area. These principles are the basis for the findings of this thesis and should be foremost in the minds of those concerned with quality in procurement.[1]

Principle 1 - Measures of quality vary according to the product and the needs of the customers.

There can be no central measure of quality that applies in all circumstances. Even if the product is constant, the customers' needs may vary based on time and location. Any organization seeking to improve its quality must recognize this and ensure that quality measures are flexible enough to adapt to changes in the product and its customers.

---

[1] The basis for most of the principles listed here are drawn from the works for W. Edwards Deming and John Guaspari.

Principle 2 - Improving quality is a long-term, never-ending process.

There is no quick fix to quality. It is not possible to wave a hand and expect quality to appear. Only over time can gains in quality be measured to verify that actions taken were the correct ones. There is always room for improvement. Any organization that decides it is satisfied with the present level of quality will never achieve real quality. Also, as noted in principle number one, quality is constantly changing. What is considered a quality product today, may only be adequate by tomorrow's standards.

Principle 3 - Dedication to quality must be total.

The emphasis on quality cannot be diluted by other factors. It is not possible to achieve quality and quota, or quality and market share, or quality and low cost. What is likely though is that dedication to quality will result in reaching quota, gaining market share, and possibly even maintaining low cost. Work done right the first time does not require rework or mass inspection. This allows workers to increase output. Quality products sell. Today's consumers are willing to pay for quality so a company with a quality product is likely to control the market. Finally, quality does cost less. Rework, waste, and loss of customers all cost money. Quality products minimize all of these and make for a better product at less cost. Principle two should be remembered here though. Quality improvements will not happen overnight and obtaining them will not be cheap. New attitudes must be learned and training must be given. These cost in terms of money and manpower. The organization must be willing to pay this price for increased quality in the future.

Principle 4 - Improving the workers is not the answer, improving the system is.

Most people already work as hard as they can. Telling them that they need to work harder is not the solution to quality and will probably have just the opposite effect. Once a thorough, dynamic training program is in place to ensure that workers are as completely trained as possible, improvements in quality must come from improvements in the system. This is management's responsibility. Its constant concern should be to find ways to improve the output of the system by finding ways to improve it. New technology that can increase employee output while improving the product, new methods of statistical checking to ensure that changes are, in fact, an improvement, and listening to workers' suggestions for improving the product are all examples of how management can accomplish this task. The key is that management should never be satisfied with its efforts. The quest for quality improvements should be constant and never-ending.

Principle 5 - Quality cannot be achieved through mass inspection.

The fifth and final principle is a warning for managers first attempting to improve their product quality. This thesis will attempt to offer measures for procurement quality in later chapters, however, these measures are only that, a measure. By inspection, they can hopefully provide some indication of the quality of the product. They cannot however, improve the product. What they offer is a gauge of how quality is progressing. The job still remains to determine what is causing the quality problems and correct them. Has training been inadequate in a particular area? Are time or quantity demands being placed on workers that override the concern for quality? Does the original input to the worker require so much rework that most of his/her time is spent in its correction rather than in the accomplishment of the original task? These are the types of questions that management must ask to improve the quality. However, remember principle two. If inspections reveal that quality has been achieved, then there is probably something wrong. Is the quality of the inspection as high as it could be? Are the current measures of quality still adequate? The quality job is a constant job that is continually changing. Quality can never be achieved entirely. It can only be strived for.

When that has become the common goal of workers and management then the organization is well on its way to success.

C. SUMMARY

The purpose of this chapter is to provide the reader with a basic introduction to quality and some key elements that should be considered in the development of a quality program for an activity. This information should provide a framework for the reader which will help in the presentation of current practices and past studies that are presented in the following chapter.

III. RESEARCH FINDINGS AND ANALYSIS

A. PREVIOUS STUDIES

The study of quality in this country has been limited until very recently. Though there have been many practitioners in the field, there has been little research. Only in the past ten years or so has the business community taken a real interest in quality.

The specific area of quality in procurement has received even less attention. Quality of the products or services provided by a contractor has been thoroughly studied and there is a great amount of literature concerning this particular aspect of quality. The specific field of contract quality however, has generated almost no studies. The study of productivity has generated a great deal of literature, and a review was conducted to attempt to glean quality related material from the general area of productivity. A report on productivity conducted at the U. S. Air Force Academy in June 1974 [Ref 10:p. 74] made the following statement:

> Finally, considerations of quality must be taken into account. In using productivity measures to assess the effect of policy changes, the manager must assure himself that an increase in productivity is not achieved at the expense of quality. Thus quality control and management are necessary adjuncts to any meaningful effort to measure and enhance productivity.

In January of 1975 another study was initiated at the Air Force Academy. This study was a follow-on to the one conducted by LTC Austin, et al. Its charter was "to define a quality procurement action and to identify factors which could be used to measure the overall quality of Air Force procurement actions" [Ref 11:p. 2].

As the single study found in a review of the literature concerning contracting quality and therefore its particular significance to this thesis, a review of the research and findings of the Air Force study will be presented in the following pages.

1. Background of the Study

The genesis for the study has already been described. It should also be noted that none of the members of the research team had any previous contracting background. The first task of the study was to define a quality procurement action. The following definition was decided upon: "A quality procurement action is one which provides to the customer the required item/service at the correct time and at a fair price" [Ref 11:p. 3]. The study was limited to Air Force procurements but also noted there was a vast range of procurements within the Air Force. Recognizing that defining quality measures for such a vast array of procurements would be difficult, the study was limited to procurements between $100,000 and $1,000,000. At the time of this study (1975) only one procurement office in the Air Force had any quality control system. The system was located at the Sacramento Air Logistics Center and concentrated on file integrity as the controlling factor in contract quality. The Air Force Academy researchers did not feel that file integrity alone satisfied their definition of quality and strived for more "macro" measures of quality. Currently, all Air Force bases have some form of procurement quality control. General aspects of the system currently in place in the Air Force will be discussed in the latter part of this chapter.

2. Conduct of the Study

The study opted to use surveys for conducting the bulk of the research on quality measures. There were two surveys used in the review. The first survey, which was intended to identify factors which influenced quality in a procurement, used open-ended questions. A duplicate of this survey is included in Appendix A of this thesis. It was intended to get responses from practitioners in the field as to what factors constituted a quality procurement. The second survey was designed to rank order the responses from the first survey and was sent to a different group of people (See Appendix B). Both surveys were sent to over 100 people and responses were received from 49.5 (survey 1) and 75.5 (survey 2) per cent of those surveyed.

3. Results of the Survey

The results of the first survey provided the information used to conduct the second survey. The results of the second survey are presented here [Ref 11:p. 12-32]. It should be remembered throughout the review of this study that the only factors reviewed for potential influence on quality were those that were highlighted during the first survey. Other procurement professionals may note factors not covered in the survey which might be considered to have a greater or lesser impact on procurement quality. The intent of the review here is to highlight possible areas of concern for those interested in improving procurement quality.

Question 1: Procurement Planning Phase

The factor with the most influence on quality in this phase of the procurement process was considered to be a clear description of the needed item or service. Second was maintaining open lines of communication between the procurement team and the customer. Though it was not highlighted by the USAF study, it should be noted here that good communication between the customer and the user can greatly improve the chances of receiving a well-defined requirement. What was highlighted by the study was that good communication between the buyer and the user was a key influencing factor for quality throughout the second survey. This reaffirmed comments on the first survey which indicated that many of the problems that arose during a procurement were directly related to a breakdown in communication between the parties to the contract.

Question 2: Formally Advertised Procurement

A clear and unambiguous invitation for bid was the most important factor in the sealed bid arena. Most of the other initial survey responses were grouped in the middle of the scale. Five of the surveys in this area contained write-in factors that were considered of high importance for quality. These factors were:

a. Allow adequate time for delivery or performance.

b. Good contract administration following award.

c. Conduct IFB process according to the law.

d. Knowledge of bid opening procedures.

Question 3: Negotiated Procurement

As might be expected, the first choice in this area was a clear and unambiguous request for proposal. The next most important was an internal prenegotiation strategy conference. There were several write-in factors in this area as well. The key ones were:

a. Careful selection of source selection and negotiation team.

b. Conduct negotiations according to appropriate regulations.

c. Accurate specifications and adequate procurement lead time.

Question 4: Contract Administration

The post-award conference, early recognition of contractor's problems and open lines of communication all scored high in their influence of quality in the contract administration area. As the study noted, each of these characterize a portion of the communication process linking the contractor, the administrative contracting officer (ACO) and the procurement contracting officer (PCO).

Interestingly, the factor which received the lowest score for this question was audits of the contractor. There were four important write-ins for this question. They were:

a. Careful selection of the administration team.
b. Timely acceptance and payment.
c. Knowledge of contractor's overall operating system.
d. Good feedback to contractor's top management.

Question 5: General Factors

The three factors that showed the greatest influence on improving the quality of a procurement were open lines of communication, a well-documented procurement package, and a high level of competition for government contracts. Based on the previous responses the first two factors were expected. The third one, an increased level of competition is however, somewhat surprising. It should be remembered that this study was conducted in 1975, long before the current push for competition. Also, the respondents to the questionnaire were, for the most part, from field activities. The recognition of the beneficial influence of competition between potential government contractors at that level and at that time is significant. There were four factors that stood out as having a detrimental effect on contract quality. They were the infusion of personnel into procurement management positions with inadequate procurement experience, contracting officers assigned too many contracts to handle each effectively, use of purchase price alone as the criterion for contract award, and failure of the government to meet one or more provisions of the contract.

Questions 6 through 9 dealt specifically with determinants of quality in contracting personnel vice the quality of the contract itself. Since this is beyond the scope of this thesis, they will not be reviewed here.

Question 10: Measures of Quality

Customer satisfaction was the overwhelming favorite as a choice for an effective measure of quality. Contractor's meeting of milestones was second while contract modifications and comparison of cost estimates with actual costs were a distant third and fourth, respectively. The responses received here are interesting and point out one of the flaws with the survey. Measures of quality are effective only if they can be measured quantitatively. The survey did not ask the respondents how the measure they selected could be used, only what it should be. The problem that immediately confronts a contract manager seeking to improve quality, is how can customer satisfaction be measured. If it can be measured, is that an accurate measure? Was the customer satisfied because the contracting officer broke all the rules to satisfy the commitment or was the PCO able to satisfy the customer and still follow all the regulatory requirements?

If the survey had included a requirement for advising how the measures might be implemented the responses might have been considerably different.

It cannot be questioned that satisfying the customer should be of utmost consideration in any enterprise, including government procurement. It is much more difficult however, to reach agreement on what customer satisfaction entails. Even tougher is measuring customer satisfaction in order to obtain a measure of quality of the product, especially in government procurement. The factors judged lower by the respondents in the USAF survey, may have received higher scores had the survey required respondents to explain how the measures could be applied. It is relatively easy to count the number of modifications made to a contract, to correct errors made previously, or simply improve on the original product. It is also simple to verify whether the contractor met the milestones specified in the contract and compare the estimated costs with actual costs. All the other choices in the survey provided much more assessable measures of quality, but the simple and equally difficult to define, customer satisfaction was chosen by a majority of the respondents because it is, in the final analysis, probably the most universal measure of quality. Later chapters of this thesis will review the measures of the USAF study as well as others in an attempt to present a system for improving contracting quality.

4. Conclusions of the Study

The USAF study determined that quality procurement actions were the result of two general classes of factors. These were participatory and environmental factors. The participatory factors were those that involved active participation by the customer, procurement team, and the contractor in the procurement process. They included:

a. Establishment of a clear understanding by all parties of the item/service to be procured.

b. Provision for adequate procurement lead time.

c. Open communications among all the parties to the procurement during the planning, contract award, and contract administration phase of the acquisition process.

d. A well-documented procurement package.

The environmental factors concerned the conditions that may influence the manner in which the procurement is conducted and included:

a. The qualifications of the members of the procurement team.

b. The workload of the procurement team.

The USAF study also made one key recommendation in its conclusion. This recommendation was to use multiple regression analysis to determine the significance of each of the quality measures discovered in the study to determine their effect on a quality procurement. This was the only mention made of applying statistical methods to determine quality in procurement that was discovered in the research for this thesis. Regrettably, it does not appear that the recommendation was followed as, although there are quality enhancing programs in the Air Force procurement world today, there is no program in place to use statistical methods in the improvement of the level of quality.

B. CURRENT PRACTICES

In order to determine the current status of quality programs in use in the NFCS today, a visit was made to five of the procurement offices within the system. Several interviews were also conducted with personnel outside the system, including two with personnel actively involved with procurement quality in the Air Force. The following is a synopsis of findings from the research conducted.

1. General Findings

The single most notable finding in researching the field offices within the NFCS was the great variety of differences within those offices. No two offices were organized in the same manner, nor did any two offices have the same mission or the same type of customers. This dissimilarity of operations should be foremost in the mind of anyone attempting to implement a program that will affect the entire NFCS.

The second fact discovered in the research was that despite the lack of a requirement to do so, almost every office visited had some type of quality program in place. Some were very rudimentary while others were nearly as complex as those submitted by quality specialists, but the important point is that the need for a quality control program of some sort was recognized and acted upon by field personnel.

2. Specific Findings

The purpose of the research was to learn the status of quality programs currently in place in the field as well as background information in developing quality measures. Five offices within the NFCS were visited during the course of research. These offices were the Aviation Supply Office, Philadelphia, the Naval Supply Center, Norfolk, and the Navy Regional Contracting Centers at Philadelphia, Long Beach, and Washington, D.C.

With one of the largest procurement operations in the Navy, the Aviation Supply Office had, as might be expected, one of the most fully developed quality programs. A regular review was conducted each month of randomly chosen purchase orders and contracts to determine their quality, and statistics were kept on the findings of these reviews [Ref 12]. The entire program was documented in an instruction signed by the chief of procurement. The reviewers had guides with which to conduct the audit of the contractual documents (See Appendix C) and a report was completed every month on the discrepancies that were found.

The quality of contracts at ASO was measured by the number of discrepancies found during the review of the documents. The discrepancies were noted as to seriousness (Cat I was most serious and Cat III was least). Also, the number of files with discrepancies was compared to the number of files reviewed to obtain a percentage of folders deficient (e.g., 1 of 5 were deficient for 20%). The combination of folders deficient and category of discrepancy combined to give a discrepancy level. Category I discrepancies received a weight of 10, category II were 5 and category III were 1. This allowed a numerical determination of the discrepancy level as noted in Table 3.

TABLE 3 - DISCREPANCY LEVEL DETERMINATION AT ASO

FOLDERS REVIEWED	FOLDERS DEFICIENT	PERCENT DEFICIENT	DISCREPANCY BY GROUP			DISCREPANCY LEVEL
			I	II	III	
3	1	33	1	0	2	4.00
2	1	50	0	1	1	3.00
3	2	67	1	0	1	3.70

There were only a few problems with the quality system. One of the problems was that the size of the review staff was not in proportion to the number of purchase orders and contracts completed each year [Ref 13]. Also, the two people that were assigned to the task had other duties besides checking the quality of contract documents. Two problems with the overall quality program are highlighted by these facts. First, there was not an overall commitment to quality. Personnel involved in the review of quality were assigned other tasks that they considered to be as important or more important than their duties concerning quality improvements. That this condition was allowed to continue suggests that top management wasn't as strongly behind the quality push as it may have been in order to insure the success of the program.

Another problem with the system was the type of reports provided (See Appendix D). The small purchase reports describe the discrepancies noted under a general heading in groups (I, II, or III based upon the seriousness of the discrepancy). Also provided is a statistical summary of discrepancy levels including past months' performance for measuring trends [Ref 14]. This report format is a classic case of identifying problems without providing a method for solution. A necessary change to the report is the inclusion of a more precise manner for identifying the deficiency. The information seems to be available, its presentation is all that is lacking. If this report also provided a statistical summary of steps taken to prevent the discrepancies, and the success obtained in doing so, then it would be of much greater value to both managers and small purchase buyers. The large contracts report is similar except it does provide information on each specific deficiency. The only change needed here is one on action taken to prevent future occurrences including a statistical representation of the success of this action.

The Naval Supply Center, Norfolk is well known for its heavy involvement in support to the fleet. Surprisingly, their concern for fleet support had not overwhelmed their desire to turn out a quality product. In fact, of all the activities visited, NSC Norfolk probably had the most thorough review process for checking the quality of acquisitions [Ref 15]. It also had a strong program for ensuring that the work was done correctly the first time. Appendix E contains the tabs used to help contract specialists ensure that all required documentation and approvals are provided as part of the contract file. They also help the specialist to maintain a more orderly file and ensure all requirements are met without referring to an old file. Referring to an old file is one of the surest ways to carry a mistake on from contract to contract. NSC Norfolk was not the only activity reviewed that used organization tabs, as most of the activities had discovered that a well-documented file is one of the cornerstones to a quality contract.

Although a written instruction was pending, there was action being taken by the command to check the quality of the procurements and a quality group had been established within the organization. Both a contract file check sheet for large contracts (See Appendix F), which serves as a double check for ensuring the contract file is complete, and a contract review sheet for small purchases, which serves as a contract quality control sheet were in use by the quality inspectors. It is not possible to be sure from the review, but it is believed that the contract file checklist had a positive effect on the quality of the contracts. This is because it was another aid for the specialists to use in ensuring the contract was complete. However, since the contract review sheet provided only the problems noted in the inspection of the purchase by quality assurance personnel and did not provide any solutions, it is felt it did more harm than good. There was also no attempt being made to retain data on the level of quality being obtained or improvements to it, included in the NSC Norfolk's quality program.

Finally, most of the work that had been done in quality assurance had not been the result of action from top management. There was no instruction in place outlining the quality system and the support of top management for the program was not readily apparent.

The three regional contracting centers reviewed, although similar in contracting responsibility and equal in many respects in the NFCS, nevertheless, have varying missions and approaches to quality. NRCC Washington and NRCC Long Beach were organized with in-house contract administration activities separate from the PCO. In both cases, the amount of contract administration effort involving corrections of mistakes by PCO personnel was suspected as having risen as a result of implementation of the PUR system.

In one case, the increase resulted in a twofold increase in contract administration backlog [Ref 16]. At the other activity, the costs of this extra effort on the part of contract administration personnel increased the original cost of producing the contract by a factor of almost three in some cases [Ref 17]. Since NRCC Philadelphia could not accurately measure the cost of contract administration due to its organizational arrangement [Ref 18], it is not possible to correlate it with the other two. It is suspected though that since the PCO in NRCC Philadelphia was responsible for correcting any mistakes made in the original effort, the number of errors made on the original contract was less.

NRCC Washington was, in fact, in the process of reorganizing to hold the PCO sections accountable for the mistakes made in the original procurement. This was not, however, accomplished in a haphazard manner. The PCO sections were reorganized to perform this new tasking by establishing specialized teams within the sections. In addition, they were also manned to allow them to more efficiently execute the contract correctly the first time. This new organization provided the most successful approach to improving the quality of its contracting product. It did however, have some problems. The concept of quality had not yet been put forth as the one that was key to the successful operation of the organization. There was no command instruction in place outlining details of the quality program and also "institutionalizing" it. It should be noted that many of these problems were the result of the short time that the program had been in effect and it is suspected that they would be addressed as the program matured.

NRCC Washington did offer one of the most interesting concepts for measuring quality. The command had determined that in some cases as much as three times the amount of effort was being spent in contract administration correcting errors made on the original contract from the PCO branch. This caused the PUR rate to go up because money was being spent in contract administration to correct mistakes that should not have been made. For example, if it originally cost $1000 to complete 5 contracts the PUR rate would be 1000/5 or $200 per action. Since additional contract administration was required to fix the contract, however, the rate was higher. For example, $200 in additional admin costs results in a new rate of 1200/5 or $240. The lack of quality in the original contract resulted in an increased cost for completing the contract. Because contract administration was done in house, the rate could be used as a measure of quality and therefore, allowed the personnel at NRCC Washington to use the PUR program as a way of monitoring and improving quality.

The success of this program was greatly attributable to its environment. Of all the offices visited, NRCC Washington had the most stable customer base, the fewest small purchases, the lowest fleet support requirements and the largest local market from which to draw resources. Such conditions gave it a stability that allowed a greater push into the area of quality than that which could be made by others in the NFCS.

3. Current USAF Practices

A short review was also conducted of the quality programs currently in use by two Air Force activities. This was done partly to compare the current practices with the recommendations and findings of the Air Force Academy study and partly to get a perspective different from that which could be obtained by reviewing only Navy activities.

Two different commands from two different systems commands within the Air Force were interviewed concerning their quality programs. The two quality programs were not the same but did have some characteristics in common. Both programs had dedicated personnel assigned to the quality function on a full-time basis. Also, both programs primarily did their reviews during the acquisition process rather than after the contract action was complete. Finally, both programs concentrated their effort almost exclusively on actions above the small purchase threshold. Differences in the two programs reviewed centered on the manner in which the review was conducted (e.g., whether or not the reviewer used a checklist) and the organization of the review group within the contracting organization. A generic description of the type of contract quality reviews currently being used within the Air Force follows.

The Air Force quality program is intended to be primarily a pre-award review process [Ref 19]. Its purpose is to find errors and correct them prior to releasing the contractual document. The reviews are conducted throughout the procurement process from receipt of requirement through contract award and post award. The timing of the review and the type of review conducted is based upon the dollar value of the contract and the type of supply or service being obtained by contract [Ref 20]. The review committee, as it is known in the Air Force, also reviews documents related to the procurement such as DD Forms 350, reviews many requests for approval at higher headquarters, and acts as the in-house expertise for a variety of procurement related problems.

Although the Air Force quality system almost guarantees the quality of the procurement action, it does so at a very high cost. The procurement review committee is a group of highly professional and experienced contract specialists performing roles as inspectors of the contractual documents. As discussed previously, placing inspectors in the system is not the solution to improving quality. The committee makes no reports other than to advise the PCO of mistakes found in the contract documentation or procedures. There are no statistics kept of what errors have been made.

Although training is sometimes given and the committee informs the purchasing divisions of errors that are consistently made there is no attempt to quantify or solve the problems using proven statistical methods. Also, under the current system there is no motivation for the PCC to improve the work of his/her personnel in putting together a better product. As mentioned earlier, most people, if aware that their work will be checked by someone else for correctness and if no reason is provided for the person to make as perfect a product as possible, then it is very likely that the person will be less concerned with doing it right the first time.

For the above reasons, it is likely that the Air Force is paying a very high price trying to inspect quality into their procurement product. A better choice would be to statistically measure the quality of the contracting effort, provide motivation for improving the quality of the product, and then using the contracting personnel now performing primarily as inspectors to help improve the system to increase the overall quality of procurements.

C. SUMMARY

This chapter provided a review of a past study on quality as well as a discussion of current practices within the NFCS and at two Air Force bases. This background was intended to aid the reader in understanding how the concept of quality is being applied to real world situations. In the next chapter, a general model for achieving quality in a contracting operation will be presented.

IV. PROCUREMENT QUALITY MODEL

A. INTRODUCTION

The first three chapters of this thesis introduced the subject of procurement quality, provided a background in quality theories and the NFCS productive unit resourcing system, described past studies of procurement quality, and described some of the current quality programs both within and outside of the Navy Field Contracting System (NFCS). The intent of this chapter is to bring the concepts and practices discussed earlier into focus with the intent of developing a model for improving contract quality for both large and small dollar procurements within the NFCS. It is hoped that field personnel will find the information provided here beneficial in improving the overall quality of their contracting efforts and will not consider the information to be another burden under which they must accomplish their tasks.

B. REVIEW

Before going much further into the discussion, a quick review of Dr. Deming's fourteen points [Ref 8:pp. 16-17] for achieving quality as well as a reaffirmation of the five quality principles listed in Chapter 2 might be beneficial.

Deming's fourteen points are:

1. Create constancy of purpose for improvement of product and service.
2. Adopt the new philosophy.
3. Cease dependence on mass inspection.
4. End the practice of awarding business on the basis of price tag alone.
5. Find problems, and constantly and forever seek ways to improve the system.
6. Institute modern methods of training on the job.
7. Institute modern methods of supervision.
8. Drive out fear.
9. Break down barriers between departments.
10. Eliminate numerical goals that ask for new levels of productivity without providing methods for improvement.
11. Eliminate work standards.
12. Remove barriers that hinder the worker.
13. Institute a vigorous program of education and training.
14. Create a structure in top management that will push every day on the above 13 points.

The five general principles of quality noted in Chapter 2 of this thesis are:

1. Measures of quality vary according to the product and the needs of the customers.
2. Improving quality is a long-term, never-ending process.
3. Dedication to quality must be total.
4. Improving the workers is not the answer, improving the system is.
5. Quality cannot be assured through mass inspection.

With the above ideas in mind it is possible to enumerate the basic characteristics of a quality program for the NFCS procurement organization.

C. GENERAL FRAMEWORK FOR A QUALITY PROGRAM

There are three basic steps to achieving and maintaining quality. The first is to establish a program that leads to quality improvements. The next step is to obtain a measure of what the level of quality is at a given point in time. The final step is the process of improving quality. Although this is the final step in the quality model, the effort required to achieve quality does not end here. This three step cycle continues forever. As conditions change, the program adapts to the changes by redefining quality requirements or redefining measures, but the overall process remains the same.

The bulk of this thesis is concerned with the first and third steps of this three step process. What is needed to obtain quality and what action can be taken to improve it? These are the questions that involve these parts of the quality model. However, the second step, measuring quality, is just as important as the other two in the overall quality program. Therefore, the remainder of this chapter will attempt to show how this three step process can work to achieve quality in an organization.

1. Step One - Achieving Quality

This part of the chapter concerns the types of action that are needed to begin a quality program. Some of the items discussed here may seem to be simple management, however, it should be remembered that this program is concerned with the attainment of quality. In the normal course of day-to-day actions, managers are concerned with many aspects of the organization - productivity, payroll, competition, and many others. This program is concerned only with the achievement of quality. It is felt that by concentrating on this alone, the overall organization will improve.

In order for a quality program to succeed there is an important condition that must first be met. This condition is one of an overall understanding throughout the organization that quality is of paramount concern. This can only be achieved if employees are convinced that management is completely supportive of the quality doctrine. Positive steps must be taken by management if they are to convince employees of this. A likely first step would be to appoint a quality control officer and a quality control organization in any procurement organization that does not already have one. With the limited manning and funding levels available in today's environment, this step may appear to many to be a further tax on shrinking resources. However, as was shown in Chapter 2 improving quality does save money in the long run, and in order to achieve quality, positive action must be taken to give it a firm foothold in the bureaucracy. Appointing quality control officers at contracting activities does much to aid this effort. In addition, to ensure that management at field activities is as convinced as their employees, a quality control "czar", if you will, should also be appointed at NAVSUP headquarters to oversee the efforts of the field representatives. This action will not only aid in institutionalizing the quality doctrine, but will provide a central point within the NFCS to address problems found in improving quality.

Training is another important aspect to the first step of the quality program. Because the requirements for putting together a Government contract are many and vary according to the supply or service being produced as well as a myriad of other factors, there is no one place that all contract specialists can go to learn their job. Although there are some short courses that are required for advancement to certain levels and some requirements for entry level personnel, for the most part, training for contract specialists in the government is an on-going process with a great deal of on-the-job training involved. Therefore, if an operation is to achieve a high level of quality in large contract or small purchase production it is important that it start with a strong, dynamic training program that includes rigorous classroom, as well as on-the-job instruction. The more vigorous the training program the greater the chances that the work force will be capable of producing high quality work, and the ease of implementing system changes to improve quality will be enhanced. No activity should expect full production or quality from any of its buyers that have not had the benefit of a solid education in contracting basics.

Management reviews are another important method of improving and ensuring quality. They are also one of the areas where practices for improving quality in large and small contracts differ.

It is probably unreasonable to expect all contract specialists to have the comprehensive knowledge required to correctly complete, in the first attempt, a large contract award. Of necessity, the system has reviews and specialization built into it. This team approach to contract execution has been effectively used throughout the government and there is no evidence to support a change in this strategy. There are probably already enough in-work reviews in the current large contract processing system. A contract specialist receives the requisition and begins to prepare a solicitation to request bids on the work. During this phase and throughout the procurement cycle the specialist has available the advice and assistance of pricing specialists, technical specialists, lawyers, superiors and a host of others. Depending on the dollar value and type of item being purchased, there are several reviews by committees and officials higher in the chain of command that may also be required. Simply put, there seem to be sufficient checks in the system to ensure that large contracts are properly prepared.

However, as small purchases are intentionally made more simple to complete, it is not unreasonable to expect buyers to be able to complete them properly on their own after a short period of learning. This lessens the need for reviews by management that are the norm in the large contract arena. This tends to allow a greater chance of problems with quality in small purchase production. Therefore, a regular review of purchases made by buyers should probably be conducted by their superiors. This review should not be made of every requisition as that will result in a lowering of quality and morale as discussed in previous chapters. The review is instead a reaffirmation to employees of management's concern for quality as well as an additional check for problems that may be highlighted by quality inspectors as discussed in the next section.

2. Step Two - Measuring Quality

The second step to the quality model is to measure the level of quality in the organization. As discussed in Chapter 3, there are many ways to do this. The Aviation Supply Office uses a discrepancy level based on the number of errors found in a review of files to determine how its contract sections are doing in providing quality output.

NRCC Washington, on the other hand, uses the PUR rate to measure its quality. These methods are both effective and there are many others that would provide equally useful measures of quality. The following paragraphs outline a general method for measuring quality that might be adopted by organizations without programs currently in place.

This is the area that the use of statistical methods first comes into practice. Like the program at ASO, the following program uses samples of the contracting product to measure quality. Deming's third point warns that mass inspection is harmful to quality. If a worker is aware that in every case his/her work will be inspected by another person before it is completed, he/she is much more likely to be less concerned with the quality of the effort the first time through. If, on the other hand, an employee is aware that he/she will be responsible for the complete product, they are more likely to be concerned with getting it right the first time. This is the thrust behind the fifth quality principle cited in this thesis, quality cannot be achieved by mass inspection, it must be an integral part of the process from the beginning.

Inspection on a sample basis is, however, still a necessary part of the overall program. There must be some measure of how the organization is doing with respect to quality. Samples of the finished product provide this function without attempting to correct the mistake before it goes out the door. This ensures responsibility for the product quality rests with the worker, and still gives a measure of how the system is doing overall.

Under this model a quality inspection of randomly selected contractual documents would be conducted by the quality control organization previously mentioned to gain a measure of the level of quality at the activity. A checklist such as Appendix G for small purchases and Appendix H for large purchases should be used as a guide during the inspection to ensure consistency and completeness. If the quality program will be controlled internally then individual command's management can use its discretion in this regard. However, if an NFCS system-wide quality program will be used and activities are to be compared, then a common check sheet must be used and inspectors should be trained to ensure similarity of inspections among activities. Appendices G and H are provided as a basis for such a check sheet and must be expanded to provide coverage of the broad range of areas included in the NFCS as a whole.

The sample selected for review should be large enough to ensure it is representative of the entire operation.[2] There are many statistical methods that might be used to determine how to establish a quality level based on the results of the quality inspection. A simple choice is to use the percentage of documents without errors as the measure. Other more complex methods could also be used. The more definitive the statistical method used to measure quality is, the more useful it will be for improving quality.

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[2] An excellent guide for sampling techniques is contained in Western Electric's Statistical Quality Control Handbook. In fact, this book as well as others listed in the bibliography are excellent sources for quality control personnel to research for finding statistical models for their quality programs.

Another measure that would appear useful is that of customer satisfaction. As the customer is the most important source of quality input of any service oriented organization, including government purchase activities, any program that did not include them would be incomplete. However, as pointed out in Chapter 3, measuring quality through customers is difficult to do. The key to using this input successfully is to control the types of responses that are allowed and to limit their effect. This can be done by careful selection of the questions asked of the customers. A customer satisfaction form with sample questions is provided as Appendix I to this thesis. This form offers generic information as to the overall effectiveness of the operation as well as providing data that may be useful to the quality personnel in determining other problem areas.

It should be remembered by anyone attempting to develop an overall quality program for comparing different activities, that an activity which is able to foster good customer relations in spite of low contract quality, may fair better on this measure than one with higher quality and more demanding customers. The combination of internal inspection and input from customers should provide adequate information for measuring quality. Assuming that measures of 80% accuracy were obtained from the inspection of documents and 85% of the customers surveyed were pleased with the quality of the contracts the next step is to improve on these percentages by finding problems and correcting them.

3. Step Three - Improving Quality

The use of statistical measures of quality does not end with its initial measure. Once management is made aware of its quality level, it must take action to determine where the system can be improved to assist the worker in making a quality product. Some areas to consider in attempting to improve the system include: Is training adequate? Is the manning level commensurate with the workload? Does the quality of the incoming requisition hamper the buyer's ability to turn out a quality purchase? Are there other methods or procedures which, if used, could improve the buyer's ability to produce a higher quality product in the same or even less time? Questions such as these and a myriad of others (See Section B of Appendices G and H) should be asked by management in attempting to improve quality. If it appears that a change to the system may be beneficial, it should be incorporated.

It is when changes are made that the real value of statistical methods takes place. A relatively constant level of quality (or measure thereof) should be available prior to testing the effect of a change to the system. When the change is implemented the change in quality should be measured to determine if the change had a positive or negative effect, as well as, the magnitude of the effect. Then the question becomes: Is the increase in quality sufficient to justify the change? If so, then the change should be made permanent. If not, then it shouldn't be retained.

Assume that the 80% accuracy rate noted above was determined to be caused in part by an incomplete justification for sole source procurements. Upon institution of training in this area the overall accuracy rate was raised to 83% and the errors based on sole source justification were reduced to zero. This is the type of process that must take place to ensure quality improvements.

The use of such methods is not as simple, nor as quick, as their description here. This fact is one of the primary reasons that the establishment of quality professionals in the contracting system is central to the successful implementation of a viable quality program.

4. Manning the Quality Model

The manpower requirements for a program such as the one outlined above may seem prohibitive. However, one of the activities visited during the research portion of this thesis had successfully used its Naval Reserve units in assisting in the quality effort for small purchases [Ref 16]. As all of the major buying activities within the NFCS currently have Reserve units assigned, it is suggested that this may be a very cost effective method of improving the quality of the small purchase organization and the buying knowledge of the Reserve unit at the same time.

The use of Reserve personnel is more difficult with large contracts, however, due to the greater complexities involved in these actions. There is a definite need for more personnel in order to properly conduct a quality program for large contracts. Depending on the office organization, these could be gained by changes that free some personnel from their current duties (e.g., disestablishment or down loading of contract administration sections.) The use of Reserve personnel may be possible in some instances, but the likelihood of finding Reserve personnel capable of properly evaluating complex large contracts is remote for most offices. As a result, the bulk of large contract quality work will have to be performed by permanent quality personnel. Though the investment here may be great in some instances, the overall gain to the purchasing activity and its customers should prove beneficial.

D. SUMMARY

A review of the five contracting principles and their relationship to the three step contract quality program may be helpful at this point.

The first principle is that measures of quality vary according to the product and the needs of the customers. Designing a quality control system within the NFCS should allow for the recognition of the variations between offices under the NFCS and also provide for some central quality policies for the system. There are and should be tremendous differences between an office that is primarily involved in fleet support and one that is concerned with shore support. Quality concerns could also be expected to be different. Correctness of the incoming requisition can be a key point for the shore oriented operation, while the same requirement may be unrealistic to the ship oriented command. It is important to note that due to the overall similarity of the mission in the commands under the NFCS a case can be made for identical quality standards to be placed on all of them. If this were done, assigning the different commands a different quality level to maintain in light of their circumstances would be a viable way of taking this variability of quality into account. The quality control personnel at each of these commands must be aware of these differences and must build a quality system that keeps them in mind. At the same time, they must help the central quality control personnel at headquarters understand these differences and assist in finding common measures of quality for all the commands.

This variation of quality requirements is one of the reasons that improving quality is a long-term, never-ending process (the second principle). Perfection in any particular area is an unlikely achievement at best. Striving for it, however, is a worthy goal. The quest for achieving quality will never end because the possibility of error will never be zero. In addition, the procurement system of the United States Government is in a constant state of change. Congress, the Executive Branch and the Judicial Branch of the government create changes to the system almost daily. As those changes occur their effect on the quality of procurements must be measured and evaluated. Though the overall mission of the NFCS may remain constant, how it goes about performing this mission is likely to be affected by many changes in the acquisition field. The push for competitive awards of contracts and the more recent establishment of the streamlining advocate are two examples of changes to the system that must be adapted into a complete quality system.

The quality organization should also be concerned with finding the reasons for problems in quality. Due to the complexity of large dollar procurements and the organization of the contracting system, this process will be a constant series of solving problems, finding new ones and their causes, solving those and beginning the process again. Changes in the regulations concerning government contracts, changes in customers, and changes in personnel as well as other factors all work to keep the system in a constant state of flux. This condition should be recognized and flexibility must be maintained in developing a contract quality program.

Total dedication to quality is probably one of the more difficult principles to achieve. The establishment of quality control officers will assist in achieving this third principle. The PUR system can be an excellent program for funding contracting activities, if the quality of the contract is a consideration of the program. However, unless this is the case, the PUR system puts overwhelming emphasis on the quantity of contracts. As noted in Chapter 3, this emphasis can directly affect the quality of the product. Until the quality of the contract is considered to be a key factor in the system, it will not be a major concern of the contract specialist.

The fourth principle of quality, improving the workers is not the answer, improving the system is, should be remembered when any effort is made to improve quality. Once the training program is in place and is being followed and adequate reviews are established to ensure that the quality concept is understood by the workers, any gains in quality must be obtained through improvements to the system, not the people. The quality control organization, using the tools of random inspection and statistical methods to find problems, to detect the source of problems, and correct them, helps management to improve the system in which the contract is produced. Given a static environment, asking employees that are already working as well as they can to do better, will not increase quality but will probably decrease job satisfaction and lower morale. This will likely decrease the level of quality. If on the other hand, employees see that management is truly concerned with quality as evidenced by the addition of quality experts to the organization, and also see an intelligent attack on quality problems with sample data and quality measures, their concern for quality will grow.

The use of random samples is basic to the last principle, that quality cannot be achieved through mass inspection. Samples provide a measure of the quality of the product. Statistical methods aid managers in measuring quality, finding the source of problems, and measuring the effect of changes made to solve the problems. If the buyer is untrained in procedures, inspecting every item will increase the likelihood that all the mistakes are found, but they must still be corrected. Proper training will allow the buyer to complete the contract the first time and eliminate the need for the mass inspection of output. Analysis of statistical data will highlight for management those areas where training must be improved.

Finally, it should be remembered that one of the fundamental aspects of a complete quality program is that the program covers the entire operation. Although it has been stated that a sampling method should be used for checking the quality of the final product, this is not where the program should concentrate all of its efforts. This is especially true when attempting to improve the system during the third step of the quality program. The overall operation should be reviewed from beginning to end. Are there clear operating procedures in place throughout the operation that are followed by the employees? Are the requisitions given to the buyers complete enough to allow them to do their job? Are there bottlenecks in the system that cause delays or act as "barriers" that prevent the specialist from completing the contract in a timely manner [Ref 8:p. 43]?

It may appear that some of these questions should be asked by managers and resolved in the normal course of their job, so that the need for quality specialists is not valid. In truth though, if these questions are asked, the course of action that is followed to resolve the problem is often guesswork on the part of management with no well planned method of determining its effect on the problem. Just as often the problem is not resolved or not discovered because some other problem, seemingly more important at the time, requires management's attention. A permanent quality staff guarantees that concern for quality will not be overruled by the "latest flail". At the same time, it ensures that actions taken to improve quality can be measured and withdrawn if ineffective.

V. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

This thesis has attempted to provide a background on what quality is, its status with regard to the completion of contractual actions, and a basic model for improving the quality of contracts within the NFCS. The following is a presentation of the principal conclusions and recommendations of the thesis.

B. CONCLUSIONS

Conclusion 1. A quality procurement is one that provides to the customer, the desired item or service within the time required at a fair and reasonable price that is in the best overall interests of the Government and that is in compliance with the rules and regulations that govern such a procurement.

This is the definition of a quality procurement that was used for the purposes of this thesis. It meets the needs of customer satisfaction, compliance with regulations and correctness of the purchased product compared to the item requested. Within this definition of quality is a wide range of quality levels. From the basic tool required for the job to the finest tool ever made, there are many different quality levels. The key is to find the level that is desired and to work towards it using proven quality concepts.

Conclusion 2. The Purchase Unit Resourcing (PUR) system currently used for funding activities within the NFCS places emphasis on quantity rather than quality of the contracting product.

The reason for this is that the quantity of output is the basis for funding NFCS activities. As long as there is greater emphasis placed on the quantity of the product instead of the quality of the product, the quality will suffer.

Conclusion 3. There are five basic principles of quality that should be remembered when establishing a quality program. These principles are:

1. Measures of quality vary according to the product and the needs of the customers.
2. Improving quality is a long-term, never-ending process.
3. Dedication to quality must be total.
4. Improving the workers is not the answer, improving the system is.
5. Quality cannot be achieved through mass inspection.

These principles are gleaned from the works of Deming and Guaspari. They focus on the some of the more important concepts of attaining quality.

Conclusion 4. Most offices that were reviewed have recognized the need for improving the quality of the contracting product and have established quality programs.

Managers in the field seem to have determined that action must be taken to ensure the contractual product that they produce is of a high quality. At the same time, other requirements such as a heavy workload and increasing complexity of the contracting process have made it difficult for them to make great strides in improving quality. It is hoped that some of the ideas expressed in this thesis will be of use in overcoming some of these problems.

C. RECOMMENDATIONS

The following recommendations, if implemented, should result in improved contract quality within the NFCS.

Recommendation 1. The NFCS should appoint quality control officers at each of its major buying activities to head up a quality control organization and at NAVSUP headquarters a quality control "czar" should be tasked to administer an overall quality program and ensure that emphasis on quality is maintained throughout the system.

This is an important first step in the establishment of quality programs. This quality control officer will help to "institutionalize" the concept of quality, provide a central point where quality concerns and concepts can be discussed and will provide the tools necessary to put into place the concepts of the quality put forth in this thesis.

Recommendation 2. The NFCS should adopt the quality model presented in this thesis to improve the quality of procurements.

The three step process of achieving quality, measuring quality, and improving upon that level of quality offers a clear systematic way to improve the level of quality in an organization. The program is also flexible enough to be adapted to a wide variety of organizational arrangements and the many changes that are the nature of the procurement process.

Recommendation 3. The PUR system should be changed to ensure that the emphasis on quantity alone is shifted to include quality of the contracting product as well.

Two activities that were reviewed already have programs that might be used to accomplish this action. The Aviation Supply Office develops a discrepancy level that is used to measure the quality of its procurements. NRCC Washington measures their quality by determining how much of their contract administration activity is a result of mistakes made by the PCO branches. Either of these methods or a combination of both or some other method yet to be developed should be used to increase the emphasis on quality in the system. A possible example is to simply subtract actions that fail a quality check from the number completed for the determination of funding by units completed. Before action is taken with respect to this recommendation, however, all activities should have an opportunity to establish quality programs. Placing new requirements for quality on organizations without providing them the tools with which to accomplish them goes against many of the concepts put forth in this thesis. Such action will probably cause harm to the quality of the contracts and at the same time provide inaccurate measures due to "gaming" of the results by activities put in this poor position.

D. SUMMARY

1. Answers to Research Questions

Primary Research Question: How can improved quality of contractual actions be achieved in the Navy Field Contracting System?

A general quality model for achieving quality in contracts is presented in Chapter 4 of this thesis. This model if combined with the establishment of quality control officers within the NFCS should result in a measurable improvement in the quality of contracts produced by the NFCS.

Ancillary Research Questions:

1. What is the definition of quality in contracting?

A quality contract is defined as one that provides to the customer, the desired item or service within the time required at a fair and reasonable price that is in the best overall interests of the Government and that is in compliance with the rules and regulations that govern such a procurement.

2. How is quality currently measured within the NFCS?

There is now no single measure of quality within the NFCS. Two of the activities that were reviewed, NRCC Washington and the Aviation Supply Office had quality programs in place that offered some measure of the quality of the contracts produced. NRCC Washington used the PUR rate as a measure of quality. As the rate decreased the quality was judged to have increased. This was possible because the contract administration function is done in house by a separate organization from the PCO sections. The Aviation Supply Office measured quality by inspecting documents on a random basis and determining what percentage of those inspected were deficient.

3. What measures of quality are used outside of the NFCS and can they be applied to the NFCS?

The Air Force now has a quality checking system that is an in-process system for assessing quality before the contract is awarded. Some of the concepts used by the Air Force concerning items to be checked for quality are useful and have been included in the appendices of this thesis. The Air Force system does not, however, attempt to measure quality. Rather, it attempts to insure it through mass inspection. For this reason, no measure of quality used by the Air Force can be applied to the NFCS quality program.

4. What specific methods should be established to improve the quality of procurement actions within the NFCS?

Establishment of quality control officers within the NFCS is the first step that should be taken to improve the quality of contracts in the system. These quality professionals should use a program such as the three step model presented in this thesis to establish quality oriented practices, measure the level of quality and then constantly work to improve on this level of quality. After the establishment of the quality professionals and the implementation of a quality model, the Naval Supply Systems Command should put into place a system that moves the current emphasis of quantity in the Productive Unit Resourcing program to one of quality. This could be accomplished by deducting units that fail to pass quality measures, using decrease in the PUR rate to measure increases in quality, or any other method that is devised by quality officers in the NFCS.

2. Recommendations for Further Research

The primary area for further research is establishment of precise measures of quality and the development of a model for statistical analysis that can apply these measures regardless of the organization of the contracting activity. This effort would result in a complete quality program that allows not only improvements in quality but also a way to measure the improvements and compare different contracting activities.

APPENDIX A

ANALYSIS OF PROCUREMENT QUALITY

QUESTIONNAIRE ONE

This questionnaire is being used to draw upon the experience of knowledgeable personnel in the procurement field. You will be asked to identify factors which, in your opinion, affect the quality of those procurement actions in the $100 thousand to $1 million price range with which you are familiar. For purposes of this study, a procurement action encompasses all activities required for contract planning, placement and administration.

The information you provide will be used to structure a second questionnaire designed to rank these factors in order of their perceived relative impact on the quality of a procurement action. This second survey will be mailed to a different set of procurement personnel. Your time and effort in completing this questionnaire are deeply appreciated.

1. Under each of the following contract phases, list those tasks which you feel are required to ensure that a procurement action will be a "good" one.

    a. Contract planning/pre-award phase

    b. Contract award phase

    c. Contract administration phase

2. Describe the qualities (e.g., education, experience, etc.) a good procurement office should possess. If certain qualities are required by the type and complexity of the contracts handled, please note this fact.

3. Procurement policies and procedures are specified in Air Force directives and the ASPR. If you feel that any of these directives impede your obtaining a "good" procurement action, briefly describe the directive and outline your recommendation for change.

4. For procurement actions with which you are familiar and which you would describe as "bad" procurement actions, list the characteristics which in your opinion contributed most to the unsatisfactory outcomes.

5. What was the worst procurement problem you experienced during the past year (other than inflation)? What single action or lack of action contributed most to the problem?

6. What was the single best procurement action you were involved in during the last year? What were some of the important things which made this procurement outstanding?

How many years' experience do you have in the procurement field?

Circle each functional area in which you have had procurement experience.

(a) Procurement of services (c) Contract administration

(b) Procurement of supplies (d) Other (specify)

7. Based on your experience, describe the attributes or qualities of a good procurement action.

APPENDIX B

ANALYSIS OF PROCUREMENT QUALITY

QUESTIONNAIRE TWO

ANALYSIS OF PROCUREMENT QUALITY

This questionnaire is the second in a series of two questionnaires which are designed to identify and rank factors which affect the overall quality of procurement actions in the $100 thousand to $1 million price range. In the first survey, a random selection of 150 procurement supervisors were asked to list factors which they felt had a significant impact on procurement quality. In this survey, you will be asked to use your experience to rank these factors in order of their relative importance.

For example, suppose the following evaluation had been made of those factors during the procurement planning phase which may effect the quality of the resulting procurement action.

Less Importance to Ensure a Quality Procurement	Greater Importance to Ensure a Quality Procurement

---

2 4 5/6 3 7 1

1. Clear statement of item/service required, precise drawings, reasonable delivery schedule, etc.
2. Removal of unnecessary embellishments from item/service required.
3. Close coordination between procurement team and customer during contract planning phase.
4. Technical experts consulted during design/specification of the requirement.
5. Accurate price estimates computed.
6. Select proper type of contract for the procurement.
7. Adequate funding available in customer's budget.

In the above evaluation, the respondent considered Factor 1 (clear statement) to be of great importance to obtaining a quality procurement, and it was more important than Factor 7 (adequate funding). Factor 2 (removal of embellishments) was considered to be of less importance than any of the factors. Note that the respondent could distinguish no significant difference between Factors 5 (accurate price estimates) and 6 (selecting type of contract) so he placed them at the same point on the scale.

PROCUREMENT PLANNING PHASE

Less Importance to Ensure a Quality Procurement	Greater Importance to Ensure a Quality Procurement

1. Clear statement of item/service required, precise drawings, reasonable delivery schedules, etc.
2. Removal of embellishments from item/service required which are unnecessary to meet performance specifications.
3. Close coordination between procurement team and customer during contract planning phase.
4. Technical experts consulted during design/specification of the requirement.
5. Accurate price estimates computed.
6. Select proper type of contract for the procurement.
7. Adequate funding available in customer's budget.
8. Other

FORMALLY ADVERTISED PROCUREMENT

Less Importance to Ensure a Quality Procurement	Greater Importance to Ensure a Quality Procurement

1. Clear, unambiguous IFB.
2. Maintenance of current list of responsible contractors.
3. Conduct pre-award survey of responsive bidders.
4. Investigation of responsive contractors' past performance on similar procurements.
5. Preparation of a contract which contains required clauses and is fair to both parties.
6. Other

NEGOTIATED PROCUREMENT

Less Importance to Ensure a Quality Procurement	Greater Importance to Ensure a Quality Procurement

1. Pre-negotiation strategy conference to eliminate confusion/ differences within the procurement team, and to establish a sound negotiating position.
2. Conduct "Should Cost" analysis.
3. Clear, unambiguous RFP/RFQ.
4. Conduct pre-award survey of possible contractors.
5. Preparation of a contract which contains required clauses and is fair to both parties.
6. Other

CONTRACT ADMINISTRATION

Less Importance to Ensure a Quality Procurement	Greater Importance to Ensure a Quality Procurement

1. Post-Award conference with contractor, PCO, ACO, and customer to ensure understanding of responsibilities of all parties to the contract.
2. Rapid response to contractor queries.
3. Ensure PCO and ACO present united front to contractor.
4. Failure of ACO to strictly enforce contract provisions.
5. Early recognition of contractor's problems in meeting contract provisions.
6. Keep lines of communication open among PCO, ACO, Contractor, customer.
7. Thorough audits of contractor.
8. Effective inspection of goods/services provided by contractor.
9. Other

CENTRAL FACTORS

Currently has Adverse Effect on Obtaining Quality Procurements	No Effect	Currently has Favorable Effect on Obtaining Quality Procurements

A. Legal requirements set forth in ASPR/Procurement Regs with regard to social clauses/directed sources (e.g. Small Business Setasides).

B. Outside political forces brought to bear on procurement managers.

C. Use of life-cycle costing as a criterion for contract award.

D. Turnover rate of procurement managers.

E. Use of purchase price alone as criterion for contract award.

F. High level of competition for government contracts.

G. Infusion into procurement management positions of personnel with inadequate procurement experience.

H. Well documented procurement package.

I. Open lines of communication among PCO, ACO, contractor, customer.

J. PCO's, ACO's assigned too many contracts to handle each effectively.

K. Failure of Government to meet one or more provisions of the Contract.

L. The number of supporting documents/forms required to complete a procurement action.

M. Layering of supervisory personnel in the procurement system.

N. Use of Design to cost procurements.

O. Unnecessary reliance on sole source procurements when competitors could be found.

MEASURES OF QUALITY

Ineffective Measure of Overall Procurement Quality	Effective Measure of Overall Procurement Quality

1. Number, reason, source of contract modifications.

2. Contractor's meeting of delivery milestones.

3. Under cost-plus contracts: comparison of initial cost estimates vs final cost to government.

4. Customer satisfaction with good/service delivered by contractor.

5. Other (specify)

Please enter your MAJCOM.

APPENDIX C

SMALL PURCHASE REVIEW SHEET

AWARD NO.	AWARD DATE	AWARD VALUE	PRIORITY	REVIEWER	DATE

TYPE OF AWARD ☐ CONTRACT ☐ D.O. UNDER BOA ☐ OTHER	CONTRACTOR

1. GENERAL INFORMATION

BUYER	CONTRACTING OFFICER	BUYING SECTION

MATERIAL/NSN	QUANTITY	UNIT PRICE	DELIVERY SCHEDU

2. METHOD OF SOLICITATION

COMPETITION ☐ COMPETITIVE ☐ SOLE SOURCE	SYNOPSIZED ☐ NOT REQ'D ☐ YES ☐ NO	NAVMAT FORM 4380/ ☐ SMALL BUSINESS SET-AS ☐ LABOR SURPLUS SET-AS ☐ NO SET-ASIDE ☐ NOT REQUIRED ☐ REVIEWED BY PCO
DD FORM 1155 ☐ FORM CURRENT ☐ PROPERLY FILLED OUT	FAST PAY ☐ YES ☐ NO ☐ PROPER ☐ APPROPRIATE BLOCK CHECKED (BLOCK 16)	
REPETITIVE PROCUREMENT ☐ YES ☐ NO	DD FORM 254 ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO	

3. SOURCE OF SELECTION AND COMPETITION

NO. SOLICITED	NO. OFFERS REC'D	AWARDED TO ☐ SMALL BUSINESS ☐ LARGE BUSINESS ☐ OTHER	LIST OF TENDER ☐ YES ☐ NO

4. PRICING

PRICE COMPETITION ☐ YES ☐ NO	DOCUMENTED PRICE ANALYSIS ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO	PRICE COMPETITION ☐ NOT REQ'D ADEQUATE ☐ YES ☐ N
COST PRICING DATA ☐ NOT REQ'D ☐ YES ☐ NO	PRE-NEGO. MEMO ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO	NEGOTIATION CONDUCTED ☐ YES ☐ NO
PRICE NEGO. MEMO./DOCUMENTATION DD FORM 1784 ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO	REVIEW AND APPROVAL OF PRICE INCREASES ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO	

5. PROCUREMENT HANDLING

PR MATERIAL DESCRIPTION ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO	DD FORM 350 ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO	CRB REVIEW/APPROVAL ☐ NOT REQ'D ☐ YES ☐ NO	FILE DOCUMENTATION ☐ COMPLETE ☐ INCOMPLETE	FUNDS AVAILABLE ☐ YES ☐ N

6. PROCESSING TIME

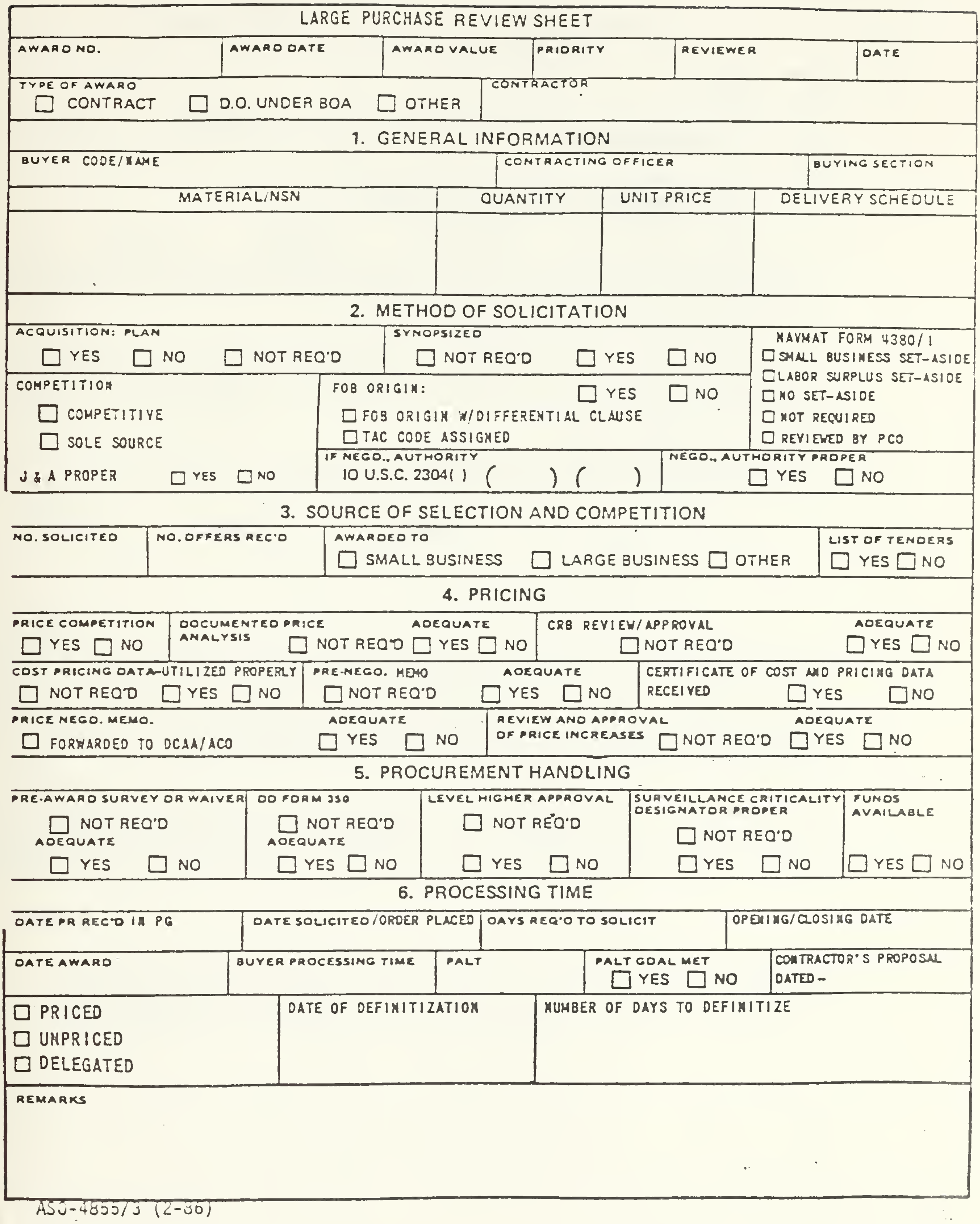
DATE PR REC'D IN PG	DATE SOLICITED/ORDER PLACED	DAYS REQ'D TO SOLICIT	OPENING/CLOSING DATE

DATE AWARDED	BUYER PROCESSING TIME	PALT	PALT GOAL MET ☐ YES ☐ NO	CONTRACTOR'S QUOTE DATE RECEIVED

☐ PRICED ☐ UNPRICED ☐ DELEGATED	DATE OF DEFINITIZATION	NUMBER OF DAYS TO DEFINITIZE

REMARKS

ASO-4855/2 (2-86)



LARGE PURCHASE REVIEW SHEET

AWARD NO.	AWARD DATE	AWARD VALUE	PRIORITY	REVIEWER	DATE

TYPE OF AWARD ☐ CONTRACT ☐ D.O. UNDER BOA ☐ OTHER	CONTRACTOR

1. GENERAL INFORMATION

BUYER CODE/NAME	CONTRACTING OFFICER	BUYING SECTION

MATERIAL/NSN	QUANTITY	UNIT PRICE	DELIVERY SCHEDULE

2. METHOD OF SOLICITATION

ACQUISITION: PLAN ☐ YES ☐ NO ☐ NOT REQ'D

SYNOPSIZED ☐ NOT REQ'D ☐ YES ☐ NO

NAVMAT FORM 4380/1
- ☐ SMALL BUSINESS SET-ASIDE
- ☐ LABOR SURPLUS SET-ASIDE
- ☐ NO SET-ASIDE
- ☐ NOT REQUIRED
- ☐ REVIEWED BY PCO

COMPETITION
- ☐ COMPETITIVE
- ☐ SOLE SOURCE

FOB ORIGIN: ☐ YES ☐ NO
- ☐ FOB ORIGIN W/DIFFERENTIAL CLAUSE
- ☐ TAC CODE ASSIGNED

J & A PROPER ☐ YES ☐ NO

IF NEGO., AUTHORITY 10 U.S.C. 2304( ) (   ) (   )

NEGO., AUTHORITY PROPER ☐ YES ☐ NO

3. SOURCE OF SELECTION AND COMPETITION

NO. SOLICITED

NO. OFFERS REC'D

AWARDED TO ☐ SMALL BUSINESS ☐ LARGE BUSINESS ☐ OTHER

LIST OF TENDERS ☐ YES ☐ NO

4. PRICING

PRICE COMPETITION ☐ YES ☐ NO

DOCUMENTED PRICE ANALYSIS ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO

CRB REVIEW/APPROVAL ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO

COST PRICING DATA-UTILIZED PROPERLY ☐ NOT REQ'D ☐ YES ☐ NO

PRE-NEGO. MEMO ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO

CERTIFICATE OF COST AND PRICING DATA RECEIVED ☐ YES ☐ NO

PRICE NEGO. MEMO. ☐ FORWARDED TO DCAA/ACO ADEQUATE ☐ YES ☐ NO

REVIEW AND APPROVAL OF PRICE INCREASES ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO

5. PROCUREMENT HANDLING

PRE-AWARD SURVEY OR WAIVER ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO

DD FORM 350 ☐ NOT REQ'D ADEQUATE ☐ YES ☐ NO

LEVEL HIGHER APPROVAL ☐ NOT REQ'D ☐ YES ☐ NO

SURVEILLANCE CRITICALITY DESIGNATOR PROPER ☐ NOT REQ'D ☐ YES ☐ NO

FUNDS AVAILABLE ☐ YES ☐ NO

6. PROCESSING TIME

DATE PR REC'D IN PG	DATE SOLICITED/ORDER PLACED	DAYS REQ'D TO SOLICIT	OPENING/CLOSING DATE

DATE AWARD	BUYER PROCESSING TIME	PALT	PALT GOAL MET ☐ YES ☐ NO	CONTRACTOR'S PROPOSAL DATED –

☐ PRICED ☐ UNPRICED ☐ DELEGATED	DATE OF DEFINITIZATION	NUMBER OF DAYS TO DEFINITIZE

REMARKS

ASO-4855/3 (2-86)

REPRODUCED AT GOVERNMENT EXPENSE

APPENDIX D

QUALITY CONTROL REPORT FORMAT --- SMALL PURCHASES

From: PG-OA
To: PG-A

Subj: PROCUREMENT QUALITY CONTROL PROGRAM (SMALL PURCHASE)

Encl: (1) Statistical Summary by Discrepancy Level
(2) Statistical Summary by Section
(3) Discrepancies within Sections

1. This report covers the review of 30 small purchases made during December 1985. Two folders were reviewed from each section, with the exception of PGM7 and PGM10, from which five folders each were reviewed.

2. The objective of the report is to review and analyze small purchases for discrepancies and to use data to assess and improve quality. Discrepancies are categorized into groups and the groups are then assigned weights to obtain an overall 'discrepancy level'.

3. The discrepancy level, calculated as discussed in enclosure (1), on this review compares to the last two reports as follows:

	OCTOBER	NOVEMBER	DECEMBER
PGB			
PGM			
TOTAL			

The overall quality level for this report shows a decrease/increase over the previous report. The reasons for this change can be attributed to...

4. Statistical summary of discrepancy levels is shown in enclosure (1). A summary of statistics by section is shown in enclosure (2).

(The remainder of the report should include a discussion of each type of discrepancy---one paragraph for each discrepancy. The final paragraph should include a summary which may or may not provide recommendaitons for improvement.)

ACQUISITION QUALITY CONTROL

SMALL PURCHASE REPORT

PERIOD____________________ REPORT DATE__________________

				DISCREPANCY BY GROUP			
SEC	REVIEWED	FOLDERS DEFICIENT	% OF FOLDERS DEFICIENT	I	II	III	DISCREPANCY LEVEL
PGB-2							
PGB-3							
PGB-4							
PGB-6							
PGB-8							
PGB-12							
PGM-1							
PGM-5							
PGM-7							
PGB-9							
PGM-10							
PGM-11							
TOTAL PGB							
TOTAL PGM							
TOTAL PG							

*Discrepancy Level is calculated by assigning weights of 10, 5, and 1 to discrepancy groups I, II, and III respectively. The weight is multiplied by the number of discrepancies in each group and totaled. The total is then divided by the number of folders reviewed.

QUALITY CONTROL REPORT FORMAT --- LARGE PURCHASES

1. (The first portion of the Quality Control Report for Large Purchases should consist of an introduction and an overview of the findings including any significant trends in deficiencies.)

2. The second portion of the report should include a detailed list of the deficiencies which were found and will be provided in the following format:

Section	Contract #

Detailed description of the discrepancy which was found.

Example:

PGB-12	85-C-0001

1. The price reasonableness determination is based on the instant price being in line with theprevious award price. Whenever such technique is used, the basis for determining the prior (base) price reasonable should be documented.

2. Item B13 of DD Form 350 shold have been coded '3' rather than '5'.

PGM-9	85-C-9999

1. The Contracting Officer's signature block on the NAVMAT Form 4380 was not properly completed.

3. The detailed deficiency listing will be followed by a section which provides a list of, first, all the contracts reviewed which contained a deficiency and, second, all the contracts reviewed which contained no deficiencies. These lists will include the Contract No., Buyer, Contracting Officer and Section Head.

APPENDIX E

FILE INDEX POSITION I
NSC NORVA 4280/6 (New 6/86)

CONTRACT FILE INDEX

POSITION I PRE-SOLICITATION

____ REQN & SUPPORTING DOCUMENTS (E.E. DD254, DD1423 W/DID's & SS STATEMENT)
____ REQUEST FOR ADDITIONAL INFORMATION/INADEQUATE SPECS, ETC.
____ FUNDING DOCUMENT (IF SEPARATE FROM REQN)
____ SPECIAL APPROVAL DOCUMENTS (I.E. GSA/ADP)
____ SPECIAL APPROVAL DOCUMENTS (I.E. DIPEC/CSS)
____ TECHNICAL EVALUATION PLAN(SOURCE SELECTION PLAN)
____ BIDDERS MAILING LIST
____ SMALL BUSINESS/SMALL DISADVANTAGED BUSINESS REVIEW SHEET
____ SYNOPSIS (OR JUSTIFICATION FOR NOT SYNOPSIZING)

MISC DETERMINATIONS AND MEMORANDUMS

- ____ SELECTION OF ACQUISITION PROCEDURE MEMO
- ____ ORAL SOLICITATION
- ____ JUSTIFICATION & APPROVAL
- ____ TYPE OF CONTRACT
- ____ CONFLICT OF INTEREST (REQUEST FOR USE)
- ____ CONFLICT OF INTEREST (APPROVAL FOR USE)
- ____ OPTION (USE & EVALUATION)
- ____ OVERTIME (REQUEST/APPROVAL
- ____ SPECIAL WARRANTY
- ____ PERSONAL VS NON-PERSONAL SERVICES QUESTIONNAIRE
- ____ PRE-PROPOSAL/PRE BID CONFERENCE
- ____ DESCRIPTIVE LITERATURE MEMO
- ____ SMALL BUSINESS/LABOR SURPLUS AREA SET-ASIDE
- ____ USE OF LIQUIDATED DAMAGES
- ____ WAIVER OF ADMIN PLAN/RETENTION OF ADMIN

____ DOL WAGE DETERMINATION (STD. FORM 98)
____ 8(a) PROCUREMENT REQUEST
____ 8(a) PROCUREMENT JUSTIFICATION/AUTHORIZATION
____ FMS PROCUREMENT SUPPORT DATA
____ ACQUISITION TRACING CHART
____ CLAUSE CHECK SHEET/SOLICITATION ROUGH DRAFT
____ CONTRACT REVIEW BOARD PRE-SOLICITATION SUMMARY
____ KO/LEGAL/REVIEW BOARD APPROVAL SHEET
____ EXTENSION OF OFFERS
____ PREVIOUS CONTRACT HISTORY
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____

FILE INDEX, POSITION II
NSC NORVA 4280/3 (New 6/86)

CONTRACT FILE INDEX

POSITION II PRE-AWARD

____ ORIGINAL SOLICITATION AND AMENDMENTS
____ REQUESTS FOR SOLICITATION DOCUMENT
____ OFFERS (LOCATOR SHEET)
____ NO OFFER RESPONSES
____ ABSTRACT OF BIDS/OFFERS
____ LATE BID MEMO AND LETTERS
____ MISTAKE IN BID DETERMINATION
____ TECHNICAL EVALUATIONS (REQUESTS)
____ TECHNICAL EVALUATIONS (RESULTS)
____ AUDIT (REQUESTS)
____ AUDIT (RESULTS)
____ PRE-AWARD SURVEY (REQUESTS)
____ PRE-AWARD SURVEY (RESULTS)
____ LETTERS TO UNSUCCESSFUL OFFERORS
____ REQUESTS FOR EXTENSION OF PROPOSALS
____ PRICE AND COST DATA/COST AND PRICE ANALYSIS
____ PRE-NEGOTIATION BUSINESS CLEARANCE
____ CERTIFICATE OF COMPETENCY (REQUEST & RECEIPT)
____ FREIGHT COST EVALUATION
____ EEO COMPLIANCE (REQUEST)
____ EEO COMPLIANCE (APPROVAL)
____ SUB-CONTRACT PLAN (WAIVER/APPROVAL)
____ RECORD OF NEGOTIATIONS
____ BEST AND FINAL OFFERS (REQUESTS/RESPONSES)
____ SB SIZE PROTEST LETTER (OR WAIVER)
____ 2ND BEST AND FINAL OFFERS (REQUESTS/RESPONSES)
____ CERTIFICATE OF CURRENT COST OR PRICING DATA
____ 2ND ABSTRACT OF BIDS OFFERS OR ADDITIONAL ABSTRACTS OF BID OFFERS
____ PRICE AND COST ANALYSIS OF BEST AND FINAL OFFERS
____ ADDITIONAL FUNDS AUTHORIZATION
____ PROTEST(S) BEFORE AWARD
____ POST-NEGOTIATION BUSINESS CLEARANCE OR NEGOTIATORS MEMORANDUM SHOWING DETAILED RESULTS OF NEGOTIATION IN EVENT PRE-NEGOTIATION OBJECTIVES ARE MET
____ DETERMINATION THAT CONTRACTOR IS RESPONSIBLE
____ AWARD PREPARATION SHEET
____ REVIEW BOARD APPROVAL FOR AWARD
____ CHINFO NOTIFICATION (FOR AWARDS OVER $3,000,000 and release letter)
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____

FILE INDEX, POSITION II.
NSC NORVA 4280/4 (New 6/86)

CONTRACT FILE INDEX

POSITION III | CONTRACT AWARD & MODIFICATIONS

____ 203 HISTORY OF INCOMING DOCUMENTS
____ MESSAGE AWARD
____ CONTRACTOR"S ACCEPTANCE OF AWARD)
____ SYNOPSIS OF AWARD
____ NOTIFICATION OF AWARD TO LOCAL CONTRACTOR
____ SIGNED CONTRACT
____ CONTRACT DISTRIBUTION SHEET
____ MODIFICATION LIST
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____
____ ____

Code 201
Test Form 86-5

CONTRACT FILE INDEX

POSITION IV　　　　　　　　　　CONTRACT ADMINISTRATION

______ MEMO TO BASE POLICE IF SERVICES ARE TO BE PERFORMED ON BASE

______ DCASMA/DCAA BUSINESS CLEARANCE TRANSMITTAL LETTER

______ BACKLOG STATUS SHEET

______ DD350

______ CONTRACT FILE CHECK SHEET

______ CONTRACT ADMINISTRATION PLAN

______ COTR DESIGNATION LETTER(S)

______ POST-AWARD CONFERENCE REPORT

______ DEBRIEFING OF UNSUCCESSFUL OFFERORS

______ NOTICE OF ASSIGNMENT

______ NOVATION AGREEMENT

______ FINAL DD250

______ TERMINATION (NO COST/CONVENIENCE/DEFAULT) DOCUMENTATION

______ BUSINESS CLEARANCE OR MEMORANDUM JUSTIFYING EXERCISE OF FIRST YEAR OPTION (INCLUDING BACKUP DOCUMENTATION)

______ BUSINESS CLEARANCE OR MEMORANDUM JUSTIFYING EXERCISE OF SECOND YEAR OPTION (INCLUDING BACKUP DOCUMENTATION)

______ PROTEST AFTER AWARD

______ NOTICE TO EMPLOYEES LETTER TO CONTRACTOR

______ DOL NOTIFICATION OF AWARD

______ LETTER REQUESTING REGN. FOR FOLLOW-ON

______ ____

______ ____

______ ____

______ ____

______ ____

______ ____

______ ____

______ ____

______ ____

______ ____

______ CONTRACT COMPLETION DOCUMENTS

APPENDIX F

CONTRACT NUMBER______________
CODE 201.______________

CODE 201
CONTRACT FILE CHECK SHEET
(TO BE FILED IN POSITION FOUR)

GENERAL	NA	YES	NO
1. Contract Number, Delivery Order No., Task Order No. in large legible numbers in upper right-hand corner of jacket.			
2. Complete 2 TICKLER CARDS. Tickle Date: 10 days before delivery for supplies. 45 days after completion for services.			
3. Complete 2 OUTSTANDING CONTRACT RECORD CARDS for all Contracts; annotate with contractors name, number of options and how long from PR receipt to award.			
4. Complete HISTORY FILE CARD.			
5. Complete COMMODITY/SERVICE CARD.			
6. Copy of BUSINESS CLEARANCE(S) in BC File.			
7. If "Availability of Funds" Clause applies, attach note to front of jacket.			
POSITION 1:			
1. All MEMOS signed and dated by Contracting Officer, Legal, Small Business Specialist, Deputy Competition Advocate, and/or Chief of Contracting (as applicable):			
a. Determination & Findings			
b. Oral Solicitation			
c. Justification & Approval			
d. Authority to Negotiate (RAN)			
e. Type of Contract			
f. Option (Use & Evaluation)			
g. Special Warranty			
h. Personal VS Non-Personal Services Questionnaire			
i. Contracting Officer's Sole Source Justification			
j. Fostering Competition			
k. Pre-Proposal/Pre Bid Conference			
l. Small Business/Labor Surplus Area Set-Aside			
m. Use of Liquidated Damages			
n. Waiver of Admin Plan/Retention of Admin			
o. Deputy Competition Advocate Approval for Sole Source Procurement			
2. ONE copy of complete REQUISITION PACKAGE with PUR-A, Funding Documentation and Applicable Approval documents.			
3. Records of Conversation signed and dated with names of persons spoken with and telephone numbers.			

CONTRACT NO. N00189-__________

CONTRACT FILE CHECK SHEET - PAGE 2 NA YES NO

4. Complete solicitation MAILING LIST. _____ _____ _____

5. Copy of SYNOPSIS, or justification for not synopsizing. _____ _____ _____

6. Ensure that lines of accounting on accounting sheet(s) and requisition are the same and are the correct type of money. _____ _____ _____

POSITION 2:

1. ONE copy of each UNSUCCESSFUL OFFERORS'/bidders' proposals/ bids. (If file is too bulky, these proposals/bids should be placed in a separate folder.) _____ _____ _____

2. Envelopes of LATE BIDS stamped and signed by Bid Opening Officer with applicable memos and letters to late bidders. _____ _____ _____

3. ALL MEMOS signed and dated (i.e. Determination of Responsibility, pricing memos, business clearances). _____ _____ _____

4. Official copy of signed ABSTRACT (DO NOT MARK ON OFFICIAL COPY. Any corrections/mistakes on official copy are to be initialed by Bid Officer). _____ _____ _____

5. FOR SET ASIDES: Letters to unsuccessful offerors or waiver of letter to unsuccessful offeror. _____ _____ _____

POSITION 3:

1. MESSAGE AWARD. _____ _____ _____

2. Contractor's verification of receipt of message award. _____ _____ _____

3. ONE copy of contract with ORIGINAL signatures on contractor's proposal, amendments, contract award, and modifications. _____ _____ _____

4. Ensure contract is in proper order (i.e. pages are in numerical order and are right-side-up). _____ _____ _____

5. SYNOPSIS of Award. _____ _____ _____

6. Ensure Attachments/Exhibits listed in Section J are attached to the contract. _____ _____ _____

7. Ensure DEPARTMENT OF LABOR WAGE DETERMINATION is incorporated (NOTE: Verify currency of Wage Determination prior to best and final/award by calling DOL at 76-523-7581.) _____ _____ _____

CONTRACT NO. N00189-____________

CONTRACT FILE CHECK SHEET - PAGE 3

	NA	YES	NO
8. Ensure DD 254 for SECURITY CLASSIFICATION is completed, signed, dated with date of contract award, and attached (DIS address is used in lieu of DCASMA address).			
9. Ensure OPTION YEARS are incorporated into contract award with Performance Periods identified with corresponding line items.			
10. If burden rate applies to "Other Direct Costs," ensure that applicable rate is incorporated into award Modification List (ON TOP).			
11. Ensure SUBCONTRACTING PLAN, if required is included in contract award.			
12. Ensure CONTRACT ADMINISTRATION PLAN is incorporated by reference in the contract award.			
13. Incorporate COMPLETE DISTRIBUTION LIST into contract award.			
14. Contract support division, HISTORY OF INCOMING DOCUMENTS form.			
15. CONTRACT DISTRIBUTION SHEET.			
PLEASE NOTE: NO Records of Conversations, price lists, descriptive literature, etc. are to be filed in POSITION 3... Any information received prior to award is to be filed in POSITION 2 in chronological order... Any information received after award is to be filed in POSITION 4 in chronological order.			

POSITION 4:
RESERVED FOR CORRESPONDENCE/ACTION AFTER CONTRACT AWARD

	NA	YES	NO
1. PUR-P CARDS pulled and notation of date pulled is on jacket.			
2. BHJ Cards completed and sent to Small Purchase, when applicable.			
3. Copy of completed DD 350 with report number in file; ensure original in Code 203 and notation of date pulled is on jacket. (COMPETITION??? Check Block 18.)			
4. COTR LETTER signed; speedletter sent to DCAA and contractor.			

CONTRACT NO. N00189-__________

CONTRACT FILE CHECK SHEET - PAGE 4	NA	YES	NO
5. For MAX PRICE B.O.A. order, copy of speedletter to DCASMA for authorization and definitization of order.			
6. Copy of Negotiation Memorandum sent to DCAA, DCASMA.			
7. Complete accounting line is cited on modifications affecting contract price.			
8. Memo sent to Base Police if services are to be performed on the Base.			

THROW AWAY:	NA	YES	NO
1. ROUGH DRAFT AND EXTRA COPIES of solicitation, keep clause check sheet.			
2. ENVELOPES not affecting late bids.			
3. White certified mail slip after green slip received.			
4. EXTRA COPIES OF REQUISITION.			
5. Rough drafts of mods and amendments.			
6. Blue and pink typing set-up sheets.			

RETAIN:			
1. Five extra copies of SIGNED CONTRACT AND MODIFICATIONS.			

NOTE:

If the file is too bulky, separate the file into two, three, or more jackets and mar the outside of the files as JACKET 1 OF 2, etc... and what each jacket contains. Contract number is to be in the upper right hand corner of each jacket.

DATE____________________ ________________________

Contract Specialist

DATE____________________ ________________________

Contracting Officer

APPENDIX G

SMALL PURCHASE QUALITY REVIEW GUIDE

The following items should be checked when conducting a quality inspection of small purchase documents. As a part of the quality review process, quality inspectors should also review the small purchase process to ascertain possible causes of errors. Section B of this appendix contains areas that might be covered during this review.

Section A - Quality Checklist

1. Is the purchase a BPA call, purchase order, or delivery order?
2. Was it sole source or competitive?
3. Is the sole source justification adequate?
5. Is the document properly numbered?
6. Are there any material typographical errors?
7. Are the pricing extensions correct?
8. Is the price reasonable and/or justified?
9. Does the price match that of the requisition?
10. If the price is greater, is the file documented to indicate that approval to overrun funds was obtained?
11. Are the specifications clear?
12. Are they in compliance with the requisition?
13. If not, is there documentation to support the change?

14. If there is a written quote in the file, does the contractual document agree with it?
15. Is the paying office correctly noted on the document?
16. Is the total award exceed $25,000?
17. If the requisition exceeds $10,000, was it synopsized?
18. Is there certification that the item is not available in the supply system?
19. Is the quantity ordered in agreement with the quantity requested?
20. Is the purchase file complete?
21. Were fast pay procedures used?
22. Were they properly followed?
23. Was the award made to a small business or under other socioeconomic program?
24. Was the award proper in this respect?
25. Was the funding for the purchase proper for the type of purchase made?

Section B - Review Areas

The following questions are typical of those that should be asked when reviewing the small purchase process in order to determine problems and find solutions to them.

1. What is the condition of incoming requisitions?
2. Are incorrect requisitions returned to the customer or fixed by the buying office?

3. Is there a training program for customers that includes requisitions, as well as other areas that would allow them to improve the contracting process?
4. Is there adequate training for all employees of the buying office?
5. Are there sufficient controls in the contracting process to highlight problems?
6. Is the activity experiencing backlogs in any part of the process?
7. What are the causes of the backlogs?
8. What are the document distribution requirements?
9. Are these requirements being met?
10. What is the cause of any delays?

Section C - Conclusion

The questions presented above are examples of the types of questions that should be asked by quality inspectors to find problems and their solutions. Questions should be added or deleted to meet the needs of the activity.

Another important source of quality information is the employees of the organization. Many problems and solutions can be found by simply conferring with the people closest to the problem. This valuable source of information should be used as often as possible to ensure the quality program is complete.

APPENDIX H

LARGE CONTRACTS QUALITY REVIEW GUIDE

The large contracts quality review guide is similar in many respects to the small purchase guide. The primary differences are found in the nature of the processes (i.e., the simple process of small purchasing vs. the complex procedures of large contracts).

Section A - Quality Checklist

1. Do incoming requisitions include clear specifications, statement of work, reasonable delivery schedule, adequate funds, etc?
2. Are these requirements met by the contract?
3. Are there unnecessary requirements in the requisition?
4. Is the requisition technically sound?
5. Are accurate price estimates included?
6. Is the contract type chosen proper for the circumstances?
7. If the contract was conducted under sealed bid procedures, was that the proper choice under the circumstances?
8. Are sealed bid procedures followed?
9. Was a pre-award survey conducted?
10. If not, should it have been? If so, was it adequate and properly documented?
11. Is the completed contract fair to both parties?
12. Were prenegotiation efforts conducted and properly documented?

13. Was a "should cost" analysis conducted? Should it have been?
14. Is the contract for goods or services?
15. If it is for services, is the contract administration to be conducted "in house"?
16. Are requirements such as contractor audit, inspection program, quality program, etc. in place in the contract/solicitation and are they being complied with?
17. Is there evidence of legal review in the file, if required?
18. Was evaluation of proposals conducted in accordance with the guidelines set forth in the solicitation?
19. Was the contract awarded competitively? Should it have been? What action is being taken to ensure competition will be obtained in the future?
20. Has the contract been modified since award?
21. Were modifications the result of mistakes made during the process of awarding the contract?
22. Is the final cost of the contract in-line with the funds provided on the requisition? Is there evidence of why there were differences?
23. Was the acquisition plan completed if required? Is it reasonable?
24. Was the award made under a socio-economic program? Were the requirements of the program properly followed?
25. Are contract review board results contained in the file?

26. Was certification of cost and pricing data required? Was it obtained?

27. Was a DD Form 350 completed?

28. Were higher level approvals required? Were they obtained?

29. Was the contract awarded in a timely manner?

30. Was a synopsis made? Is there a justification and approval in the file if it was not made?

31. Has the contract been distributed in accordance with current procedures?

Section B - Review Areas

In addition to those listed above, the following questions should be asked to assist in finding and resolving problems.

1. Are there unnecessary paperwork requirements placed on contract specialists that act as barriers to their performance?
2. Is the office workload to large for the manning level?
3. Is the organization of the office proper in light of the workload?
4. Are managers properly trained and knowledgeable in contracting to a level sufficient to properly perform their duties?
5. Is the turnover rate for employees unusually high?
6. Does communication between the contracting officer, contractor and the customer seem to be adequate?

7. Are there controls in place to ensure that the contract is complete prior to being turned over to a contract administration branch or office?

Section C - Conclusion

These questions, as well as others tied to the system (see Appendix G) should aid in the problem finding/solving portion of an activity's quality program.

APPENDIX I

CUSTOMER QUALITY QUESTIONS

The following are examples of the types of questions that may be used to judge the quality of contracts using the customer's input. The questions allow feedback from the customer but limit the affect of personalities of either the customer or buying organizations on the quality of the feedback. Questions such as these should be put into a customer service form that is mailed to selected activities as a part of the review program for a contracting office. Other questions may be added to this list according to the circumstances between the buying activity and its customers (ie., fleet support vs. shore support, etc.)

1. Was the (item/service) delivered on time according to the purchase request?
2. Was the purchase document in agreement with the purchase request concerning specifications? Delivery instructions?
3. Were copies of the purchase document received in a timely manner from the buying activity?
4. Was adequate status of the purchase provided to you during the time the requisition was being processed by the buying office?
5. Was the price paid for the item within the limits of the price on the requisition?

6. If the price was greater, were you notified in advance?
7. Do you consider the price to be fair and reasonable?
8. Were problems that arose, if any, in the process of completing the purchase resolved in a timely manner?
9. If the requisition was for service, has the contractor performed to the specifications of the contract?
10. If not, have problems been resolved by the contract administration office in a timely manner?
11. What recommendations would you make to improve the quality of the next purchase the buying activity makes for you?

These questions should provide the contracting activity's quality control staff with enough information to make basic assessments as to the quality of the contracting product in the eyes of the activity's customers. Questions can be added or deducted based on the responses received and the need to check other areas.

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